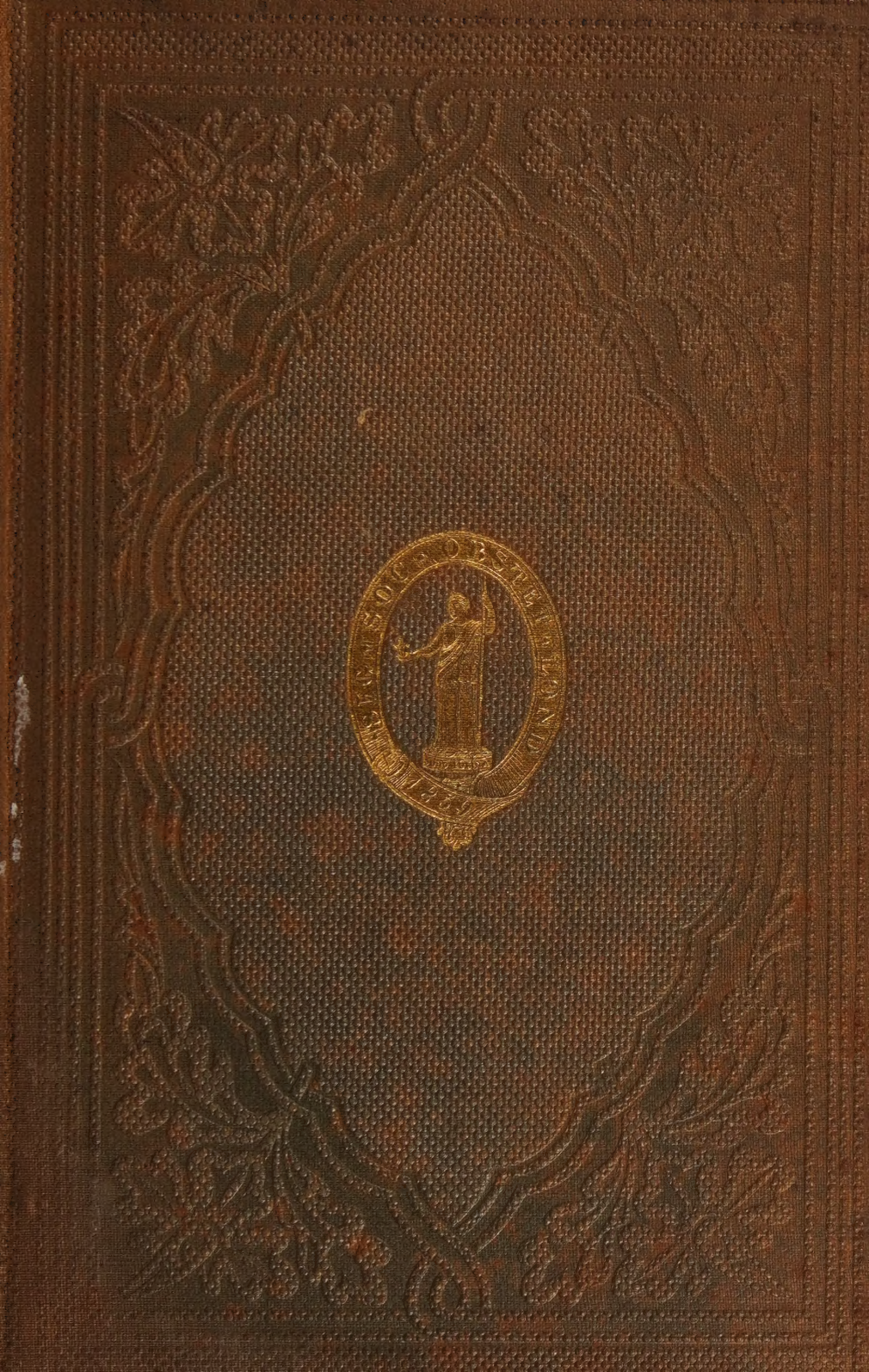

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TRANSACTIONS

OF THE

OBSTETRICAL SOCIETY

OF

LONDON.

VOL. V.

FOR THE YEAR 1863.

WITH A LIST OF OFFICERS, FELLOWS, ETC.

LONDON:
LONGMAN, GREEN, LONGMAN, ROBERTS, AND GREEN.
1864.

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James Matthews Duncan, M D., A.M., Lecturer on Midwifery and Diseases of Women and Children, Surgeon's Hall; 30, Charlotte square, Edinburgh.

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John Pagan, M.D., Professor of Midwifery at the University, Glasgow.

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1859 ANDREWS, JAMES, M.D., 8, Cornwall crescent, Camden road, N.W.

1859 ARCHER, JOHN, F.R.C.S., Surgeon to the Birmingham Lying-in Hospital; Deritend, Birmingham.

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1863 ASHFORD, EDWIN CHARLES, L.R.C.P. Ed., Birmingham Lying-in Hospital.

1859 ASPINALL, THOMAS, Green street, Over Darwen, Lancashire.

1859 AVELING, JAMES H., M.D., 5, Howard street, Sheffield. *Hon. Loc. Sec.*

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1859 BARKER, SAMUEL, M.D., St. George's House, 18, Eaton place, Brighton.

1859 BARNES, ROBERT, M.D., F.R.C.P., Lecturer on Midwifery at St. Thomas's Hospital; Physician to the Royal Maternity Charity, and Obstetric Physician to the London Hospital; 46, Finsbury square, E.C. *Vice-Pres.* 1859-60. *Council*, 1861-62. *Treas.* 1863-64.

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1861 EASTLAKE, HENRY E., M.D., Medical Officer to the British Lying-in Hospital, and Accoucheur to the St. Marylebone General Dispensary; 48, Welbeck street, W.

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1859 ELKINGTON, FRANCIS, M.D., Consulting Accoucheur to the Birmingham and Midland Counties Lying-in Hospital, and Lecturer on Midwifery at Sydenham College; 92½, New Hall street, Birmingham. *Council*, 1859. *Vice-Pres.* 1860-61.

1862 ELLAM, JOHN, L.R.C.P., Sneinton place, Nottingham.

1859 ELLIOTT, ROBERT, F.R.C.S. Edin., Senior Surgeon to the Chichester Infirmary; North street, Chichester.

1862 ELLIS, EDWARD, M.D., 117, Warwick street, Belgravia, S.W.

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1859 EVANS, GRIFFITH FRANCIS DORSETT, M.D., Trewern Lodge, 43, Addison road, Kensington, W.

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1859 FAIRCLOTH, RICHARD, F.R.C.S., Newmarket, Cambridgeshire.

1861 FARR, GEO. F., L.R.C.P. Edin., 171, Union street, Southwark, S.E.

1859 FERGUSSON, WILLIAM, F.R.C.S., F.R.S., Surgeon Extraordinary to H.M. the Queen, Professor of Surgery in King's College and Surgeon to King's College Hospital, Consulting Surgeon to the Samaritan Free Hospital; 16, George street, Hanover square, W. *Vice-Pres.* 1862-3.

1861 FETHERSTON, GERALD H., M.D., Resident Accoucheur, Melbourne Lying-in Hospital, Australia. *Hon. Loc. Sec.*

1859 FISHER, ALDER, 15, John street, Bedford row, W.C.

Elected

1860 Fox, William Tilbury, M.D., 15, Old Cavendish street, Cavendish square.

1862 Frain, Joseph, M.D., Senior Surgeon to the South Shields Dispensary, Frederick street, South Shields.

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1859 Garty, Francis Boyle, Loughborough road, North Brixton, S.

1859 Gaskoin, George, 3, Westbourne park, W.

1862 Gayton, William, 85, Brick lane, Spitalfields, N.E.

1859 Gervis, Henry, M.D., Assistant Obstetric Physician to St. Thomas's Hospital; 12, St. Thomas's street, Southwark, S.E. *Council*, 1864.

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1861 Gream, George Thompson, M.D., Physician-Accoucheur to H.R.H. the Princess of Wales; 2, Upper Brook street, Grosvenor sq., W. *Council*, 1862-63. *Vice-Pres.* 1864.

1859 Greenhalgh, Robert, M.D., Physician-Accoucheur and Lecturer on Midwifery to St. Bartholomew's Hospital, and Physician-Accoucheur to the Samaritan Free Hospital; 76, Grosvenor street, W. *Council*, 1863. *Vice-Pres.* 1864.

1863 Griffith, G. de Gorrequer, M.D., Lock Hospital, Dean st.

1859 Griffith, Thomas Taylor, F.R.C.S., Consulting Surgeon to the Wrexham Infirmary; Wrexham, Denbighshire.

Elected

1859 GRIMSDALE, THOS. F., Surgeon to the Lying-in Hospital, and Lecturer on Diseases of Children at the Royal Infirmary School of Medicine; 12, Rodney street, Liverpool. *Council*, 1861-62.

1859 GUEST, EDMUND, F.R.C.S., L.R.C.P. Edin.; 20, Halsey street, Chelsea, S.W.

1859 GUNN, THEOPHILUS MILLER, F.R.C.S., 40, York place, Baker street, W.

1859 HADEN, FRANCIS SEYMOUR, F.R.C.S., Hon. Surgeon to the Government School of Science and Art; 62, Sloane street, S.W. *Council*, 1861-63.

1863 HAILEY, HAMMETT, The Elms, Newport Pagnell.

1859 HALL, ALFRED, M.D., Senior Physician to the Brighton Dispensary; 30, Old Steyne, Brighton. *Council*, 1864. *Hon. Loc. Sec.*

1859 HALL, FREDERICK, 1, Jermyn street, St. James's, S.W.

1862 HALL, WILLIAM, Lecturer on Botany, Leeds School of Medicine; North street, Leeds.

1860 HARDEY, KEY, Surgeon to the West City Dispensary; 2, Earl street, Blackfriars, E.C.

1859 HARDEY, ROBERT, late Lecturer on Obstetrics, Hull and East Riding School of Medicine; 3, Charlotte street, Hull. *Council*, 1860-62. *Vice-Pres.* 1863-64. *Hon. Loc. Sec.*

1859 HARLEY, GEORGE, M.D., Professor of Medical Jurisprudence, University College, and Assistant-Physician to University College Hospital; 77, Harley street, Cavendish-square, W. *Council*, 1861-63.

1859 HARPER, PHILIP H., F.R.C.S., Assistant-Surgeon to the London Home for Surgical Diseases of Women; 30, Cambridge street, Hyde park, W.

1863 HARRIES, GWYNNE, M.B. Lond., late Resident Assistant Physician-Accoucheur; King's College Hospital; Pembroke Dock, South Wales.

1859 HARRINSON, ISAAC, F.R.C.S., Castle street, Reading, Berks. *Council*, 1862-64. *Hon. Loc. Sec.*

1859 HARRIS, ABRAHAM, L.R.C.P. Edin., Commercial square, Camborne, Cornwall.

1862 HARRIS, CHARLES, M.D., Northiam, Sussex.

1861 HARRIS, HERBERT ROBEY, Union square, Bury, Lancashire.

Elected

1861 HARRIS, WILLIAM JOHN, 4, Terrace, Worthing.

1859 HARVEY, WILLIAM, 48, Lonsdale square, Islington, N.

1860 HATHERLEY, N. COLLINS, M.D., Stonehouse, Plymouth.

1861 HAVILAND, EDWARD SAVAGE, M.D., 13, Lyon terrace, Maida Hill, W.

1859 HAWTHORNE, ARTHUR NEVILLE, F.R.C.S., Eccleshall, Staffordshire.

1862 HAYMAN, CHARLES CHRISTOPHER, M.D., Eastbourne, Sussex.

1859 HENLEY, THOMAS LEAMAN, 38, Church st., Croydon, Surrey.

1859 HERAPATH, WILLIAM BIRD, M.D., F.R.S., 32, Old Market street, Bristol.

1860 HESS, AUGUSTUS, M.D., Physician to the Jews' Hospital, Mile End; 14, City road, Finsbury square, E.C.

1859 HEWITT, GRAILY, M.D., Physician to the British Lying-in Hospital, Lecturer on Midwifery and Diseases of Women and Children at St. Mary's Hospital Medical School; 36, Berkeley square, W. *Hon. Sec.* 1859-64.

1862 HEWITT, TOM SMITH, M.D., Ivy Cottage, Winkfield, Windsor, Berks.

1863 HIBBERD, EDWARD, M.D., 67, Union street, Southwark, S.E.

1860 HICKS, JOHN BRAXTON, M.D., F.R.S., Assistant Physician-Accoucheur to Guy's Hospital; Physician to the Royal Infirmary for Diseases of Children and Women, Waterloo road; 9, St. Thomas's street, Southwark, S.E. *Council*, 1861-62. *Hon. Sec.* 1863-64.

1860 HIGGS, THOMAS FREDERIC, L.R.C.P. Edin.; Wolverhampton street, Dudley.

1859 HINGESTON, JAMES ANSLEY, 22, Clifton terrace, Brighton.

1859 HIRD, FRANCIS, F.R.C.S., formerly Surgeon to the Royal Infirmary for Children, Surgeon to Charing Cross Hospital; 13, Old Burlington street, W. *Council*, 1861-62.

1859 HODGES, RICHARD, M.D., 8, Portman square, W.

1859 HODGSON, GEORGE FREDERICK, 52, Montpellier road, Brighton.

1859 HOLMAN, ANDREW, 10, John street, America square, E.C.

1859 HOLMAN, CONSTANTINE, M.D., Reigate, Surrey.

1860 HOLMAN, HENRY MARTIN, M.D., Hurstpierpoint, Sussex.

1861 HORTON, GEORGE EDWARD, Dudley, Worcestershire.

Elected

1861 HOUNSELL, HENRY STRANGEWAYS, M.D., Physician to the Torbay Infirmary, and Erith House Institution for Chest diseases; Oakfield, Torquay, Devon.

1862 HUBERT, WILLIAM ARTHUR, Markgate street, Beds.

1859 HUSSEY, EDWARD LAW, F.R.C.S., Surgeon to the Radcliffe Infirmary; 104, St. Aldate's, Oxford.

1859 HUTCHINSON, JONATHAN, Assistant-Surgeon to the London Hospital; 4, Finsbury circus, E.C.

1861 HUTTON, CHARLES, M.D., Physician to the General Lying-in Hospital; 26, Lowndes street, Belgrave square, S.W.

1859 ILOTT, JAMES WILLIAM, Bromley, Kent.

1859 IMAGE, WILLIAM EDMUND, F.R.C.S., Senior Surgeon to the Suffolk General Hospital; Bury St. Edmunds, Suffolk.

1859 IRWIN, WILLIAM CROSSLEY, M.D., Belvoir street, Leicester.

1859 JACKSON, HENRY, M.D., Newcastle, New South Wales, Australia.

1861 JACKSON, THOMAS HAYES, M.D., 18, Market place, Darlington, Durham.

1859 JAMES HENRY, F.R.C.S., Heathfield, Weybridge, Surrey. *Council*, 1862-63.

1862 JAY, FREDERICK FITZHERBERT, L.R.C.P., Pulham, Mary Harleston, Norfolk.

1863 JENKINS, ROBERT W., 22, Philpot lane, E.C.

1859 JENNINGS, JOSEPH C. S., Abbey House, Malmesbury, Wilts.

1860 JEPSON, HENRY, F.R.C.S., Surgeon to the Kingston Dispensary; Hampton, Middlesex, S.W.

1862 JOHNSON, EDWARD, M.D., 19, Cavendish place, Cavendish square, W.

1863 JOHNSON, HENRY SCHOLFIELD, M.D., Congleton, Cheshire.

1861 JONES, EDWARD, M.D., The Park, Sydenham, Kent.

1859 JONES, GEORGE, 12, New Hall street, Birmingham.

1859 JONES, JOHN WILLIAM, 8, Brynteg terrace, Upper Bangor, Caernarvonshire.

1859 KEALY, JOHN ROBERT, M.D., Ashley House, Gosport, Hants. *Hon. Loc. Sec.*

1859 KEELE, GEORGE THOMAS, 1, Bruce villas, St. Paul's road, Highbury, N.

Elected

1859 KENDALL, THOMAS MARSTERS, F.R.C.S., Medical attendant to their R.H. the Prince and Princess of Wales, at Sandringham, Surgeon to the West Norfolk and Lynn Hospital; King's Lynn, Norfolk.

1861 KERBY, WILLIAM HOLMAN, Northiam, Sussex.

1859 KIALLMARK, HENRY WALTER, 46, Princes square, Westbourne grove, W.

1860 KINGSFORD, EDWARD, F.R.C.S., Surgeon to the Sunbury Dispensary; Sunbury, Middlesex, S.W.

1862 KIRKPATRICK, JOHN RUTHERFORD, M.B., T.C.D., Lying-in Hospital, Rutland square, Dublin.

1860 KISCH, JOSEPH, 2, Circus place, Finsbury circus, E.C.

1862 LAMB, JOHN STEWART, M.D., 4, Windsor terrace, Maida vale, W.

1859 LAMBE, THOMAS ROBERT, M.D., Coltishall, Norfolk.

1859 LANGMORE, J. CHARLES, M.B., F.R.C.S., 20, Oxford terrace, Hyde park, W. *Council*, 1861-64.

1862 LANPHIER, RICHARD, M.B. Dub., Alford, Lincolnshire.

1859 LEE, NEWTON B. C., 11, Talbot terrace, Talbot road, Bayswater, W.

1859 LEECH, EDWARD, Pallant, Chichester, Sussex.

1860 LEISHMAN, WILLIAM, M.D., Physician to the Glasgow Royal Infirmary, to the University Lying-in Hospital, and to the Dispensary for Diseases of Women and Children; 80, Bath street, Glasgow.

1859 LOCOCK, SIR CHAS., Bart., M.D., First Physician-Accoucheur to H.M. the Queen; 26, Hertford street, Mayfair, W. *Honorary President.*

1861 LOVE, GILBERT, Wimbledon, Surrey, S.W.

1862 LOWE, GEORGE, Burton-on-Trent, Staffordshire.

1860 LOWE, JOHN, M.D., Surgeon to the West Norfolk and Lynn Hospital; King street, King's Lynn, Norfolk.

1862 MACKENZIE, GEORGE WISE, Thetford, Norfolk.

1859 MACKINDER, DRAPER, M.D., Consulting Surgeon to the Gainsborough Dispensary; Gainsborough, Lincolnshire.

1859 MACKINLAY, JOHN, M.D., Isleworth, Middlesex.

1859 MACLAREN, ALEXANDER C., 29, Harley street, W.

1859 MACRAE, JOHN, 4, High street, Lewes, Sussex.

Elected

1861 McVeagh, Denis, L.K. and Q.C.P. Ireland; Hales street, Coventry, Warwickshire.

1859 Madge, Henry, M.D., 32, Fitzroy square, W. *Council*, 1863-64.

1860 Marley, Henry Frederick, Padstow, Cornwall.

1859 Marley, Richard, Bromyard, Herefordshire.

1862 Marriott, Robert Buchanan, Swaffham, Norfolk.

1860 Marshall, Jas., M.D., 5, Belvidere road, Upper Norwood, S.

1862 Marshall, John, 27a, Aldenham street, St. Pancras, N.W.

1859 Marshall, John Brake, 21, Princes street, Hanover square, W.

1859 Marshall, Peter, 42, Bedford square, W.C.

1860 Martin, Henry Victor, F.R.C.S., Staines, Middlesex.

1859 Martyn, William, M.D., F.R.C.S., 6, Trevor terrace, Rutland gate, Brompton, S.W.

1861 Matthews, John, M.D., 4, Mylne street, Myddleton square, E.C.

1859 Meadows, Alfred, M.D., Physician-Accoucheur for the out-patients to the General Lying-in Hospital, York road; Physician-Accoucheur to the St. George's and St. James's Dispensary; 9, Cavendish place, Cavendish square, W. *Council*, 1862-64.

1859 Merriman, Samuel William John, M.D., Consulting Physician-Accoucheur to the Westminster General Dispensary, and Physician-Accoucheur to the Western General Dispensary; 3, Charles street, Westbourne terrace, W. *Council*, 1859-60.

1861 Middleton, William, F.R.C.S., 25, Lansdowne place, Leamington, Warwickshire.

1859 Miles, Charles, 13, Conduit street west, Westbourne terrace, W.

1859 Mitchell, Joseph Thomas, F.R.C.S., 8, Percy place, Clapham road, S. *Council*, 1863-64.

1859 Moorhead, John, M.D., Surgeon to the Weymouth Infirmary and Dispensary, Weymouth, Dorset.

1863 Morgan, Edward, Llanelly, Caermarthenshire.

1859 Moyles, Thos., M.D., 109, Broad street, Birmingham.

1863 Murphy, William, M.D., Peitermaritzburg, South Africa.

Elected

1859 MURPHY, EDWARD WILLIAM, M.D., Professor of Midwifery in University College, and Obstetric Physician, University College Hospital, Physician-Accoucheur to the Northern Dispensary; 41, Cumberland street, Bryanston square, W. *Vice-Pres.* 1859-60.

1859 MURRAY, GUSTAVUS CHARLES P., M.D., Physician-Accoucheur to the Great Northern Hospital, Medical Officer to the British Lying-in Hospital, Physician for Diseases of Women and Children to the St. George's and St. James's Dispensary; 17, Green street, Grosvenor square, W. *Council*, 1864.

1859 MUSGRAVE, JOHNSON THOMAS, Pembroke place, Finchley road, N.W. *Council*, 1859-60.

1859 NAPPER, ALBERT, Broad Oak, Cranley, Guildford, Surrey.

1863 NASON, JOHN JAMES, M.B. Lond., Bridge street, Stratford-on-Avon.

1859 NASON, RICHARD BIRD, Nuneaton, Warwickshire.

1859 NEAL, JAMES, 85, New Hall street, Birmingham.

1861 NELSON, DUCKWORTH, F.R.C.S., Marlborough road, St. John's Wood, N.W.

1859 NEWMAN, WILLIAM, M.D., Stamford, Lincolnshire.

1859 NEWNHAM, WILLIAM, Richmond villa, Tunbridge Wells, Kent.

1859 NEWTON, EDWARD, F.R.C.S., 30, Fitzroy square, W.

1859 NICHOLSON, WILLIAM HUNTER, 9, Phœnix street, Clarendon square, N.W.

1861 NICHOLS, GEORGE W., Almond Tree House, Rotherhithe, S.E.

1859 NUNN, THOMAS WILLIAM, Assistant-surgeon to the Middlesex Hospital; 8, Stratford place, Oxford street, W.

1860 OAKSHOTT, JOHN, Highgate, N.

1859 O'FLAHERTY, THOMAS AUSTIN, M.D., 2, Baker street, Portman square, W.

1859 OLDHAM, JAMES, 53, Norfolk street, Brighton.

1859 OLDHAM, HENRY, M.D., F.R.C.P., Obstetric Physician and Lecturer on Midwifery and Diseases of Women and Children at Guy's Hospital; 26, Finsbury square, E.C. *Vice-Pres.* 1859. *Council*, 1860. *Treas.* 1861-62. *Pres.* 1863-64.

Elected

1859 ORFORD, WILLIAM COCKERELL, 211, High street, Deritend, Birmingham.

1863 OSWALD, JAMES WADDELL JEFFRIES, Rochford, Essex.

1863 OWEN, ALBERT PHILIP, Margate, Kent.

1861 OWEN, WILLIAM B., 61, Cleveland square, Hyde park, W.

1859 PALFREY, JAMES, M.D., Senior Assistant-Physician to the Metropolitan Free Hospital, and Physician to the Surrey Dispensary; 12, Wellington street, Southwark, S.E.

1861 PALMER, SILAS, M.D., London road, Newbury, Berks.

1862 PARKER, THEOPHILUS RT. BUSH, Abbotsbury, Dorset.

1863 PARSONS, EDWARD, M.B. Lond., Samaritan Hospital, Edwards street, Portman square, W.

1860 PAYNE, CHARLES HENRY, M.D., Wimbledon, Surrey, S.W.

1860 PEARSE, GEORGE, L.R.C.P. Edin., 10, Regent street, Westminster, S. W.

1861 PEARSE, FREDERICK, L.R.C.P. Edin., 49, Crockherbtown, Cardiff, Glamorganshire.

1859 PEIRCE, R. KING, 16, Norland place, Notting hill, W.

1859 PINCHARD, BENJAMIN, M.D., Cottenham, Cambridgeshire.

1860* PLOWMAN, WM. T., M.D., H. Hardstaffe's, Esq., Hache Court, near Taunton.

1859 POLLARD, WILLIAM, Jun., Surgeon to the Torbay Infirmary and Dispensary, Torquay, Devon.

1860 POLLOCK, TIMOTHY, M.D., 26, Hatton garden, E.C.

1860 PORTER, CHARLES, 54, Digbeth, Birmingham.

1859 POTTER, JEPHSON, M.D., 109, Upper Parliament street, Liverpool.

1859 POUND, GEORGE, Odiham, Hants.

1863 POWELL, JOSIAH T., M.D., 325, City road, E.C.

1859 POWELL, ROBERT GEORGE, Buntingford, Herts.

1859 PRANCE, ROBERT ROOKE, M.D., Heath street, Hampstead, N.W.

1863 PRICE, WILLIAM PRESTON, M.D., Surgeon to the Metropolitan Infirmary for Scrofulous Children, Margate.

1859 PRIESTLEY, W. O., M.D., Professor of Midwifery in King's College, London, and Physician-Accoucheur to King's College Hospital, and Consulting Physician-Accoucheur to the St. Marylebone Infirmary; 17, Hertford street, Mayfair, W. *Council*, 1859-60-61.

Elected

1862 PRINCE, FREDERICK, Sawston, Cambridgeshire.

1859 PRITCHARD, EDWARD WILLIAM, M.D., 22, Royal crescent, Glasgow. *Hon. Loc. Sec.*

1860 PROUDLOVE, THOMAS JAMES, M.R.C.P., Tattenham, Chester.

1859 PYLE, JOHN, F.R.C.S., 56, Oxford terrace, Hyde park, W.

1859 RADFORD, THOMAS, M.D., Consulting-Physician, St. Mary's Hospital, Manchester; Moor field, Higher Broughton, Manchester. *Vice-Pres.* 1859.

1859 RAMSAY, JOHN ALLEN, L.R.C.P. Ed., Great Shelford, Cambridge.

1860 RAMSBOTHAM, JOHN HODGSON, M.D., 16, Park place, Leeds.

1859 RANDALL, JOHN, M.D. Lond., Medical Officer, St. Marylebone Infirmary; 14, Portman street, Portman square, W.

1860 RANSOM, ROBERT, F.R.C.S., 5, Jesus lane, Cambridge.

1861 RASCH, ADOLPHUS A. F., M.D., Hon. Phys. to the Eastern Dispensary of the German Hospital; 7, South street, Finsbury square, E.C.

1859 RAY, EDWARD, F.R.C.S., Dulwich, Surrey, S. *Council*, 1864.

1860* RAYNER, JOHN, 19, Kingsland crescent, Kingsland road, N.E.

1859 RAYNES, HENRY, Gringley-on-the-hill, Bawtry, Yorkshire.

1859 REE, HENRY PAWLE, L.R.C.P. Ed., Walham green, Fulham, S.W.

1859 REECE, GEORGE, 45, Sussex gardens, Hyde park, W.

1859 REMINGTON, THOMAS, Medical Officer to the Clapham General Dispensary; 1, Grove place, North Brixton, S.

1860 RENTON, JOHN, Shotley bridge, Gateshead, Durham.

1859 RICE, JAMES, M.D., Surgeon to the Western Dispensary, Broadway, Westminster; 44, Gloucester street, Pimlico, S.W.

1860 RICHARD, EDWARD WILLIAMS, Prospect House, Finchingfield, Essex.

1862 RICHARDS, DAVID, 8, St. George's place, Brighton, Sussex.

1860 RICHARDS, JOHN SMITH CROSLAND, 36, Bedford square, W.C.

1859 RICHARDS, SAMUEL, M.D., 36, Bedford square, W.C. *Council*, 1864.

1862 RICHARDS, SMITH, 36, Bedford square.

1859 RICHARDSON, RICHARD, L.R.C.P. Edinb., Rhayader, Radnorshire.

Elected

1859 RICHARDSON, WILLIAM THOMAS, Ivy House, Highgate, N.

1860 RITCHIE, GEORGE, M.D., Billinghay, Sleaford, Lincolnshire.

1859 ROBERTS, DAVID LLOYD, M.D., Surgeon to St. Mary's Hospital, Manchester; 23, St. John's street, Deansgate, Manchester. *Hon. Loc. Sec.*

1860 ROBERTS, ROBERT PRICE, Rhyl, Flintshire.

1860 ROBERTSON, CHARLES, L.R.C.P. Ed., 7, Queen street, Scarborough, Yorkshire. *Hon. Loc. Sec.*

1860 ROBINS, GEORGE, L.R.C.P. Ed., 45, Charlotte street, Fitzroy square, W.

1859 ROBINSON, THOMAS, M.D., 64, Lamb's Conduit street, W.C.

1860 ROE, WILLIAM HAMILTON, M.B., M.R.C.P., 10, Clarence square, Brighton.

1859 ROGERS, WILLIAM RICHARD, M.D., Physician to the Samaritan Free Hospital; 56, Berners street, Oxford street, W.

1859 ROOTS, WILLIAM SUDLOW, F.R.C.S., F.L.S., Surgeon to the Royal Establishment at Hampton Court, Kingston-on-Thames, S.W.

1860 ROPER, ALFRED GEORGE, High street, Croydon, Surrey.

1859 ROSE, HENRY COOPER, M.D., High street, Hampstead, N.W.

1859 ROSS, DANIEL, Surgeon to the Metropolitan Police; 10, Commercial place, Commercial road east, E.

1859 ROSS, GEORGE, M.D., Surgeon to the Western City Dispensary; 11, Hart street, Bloomsbury, W.C.

1859 ROUTH, CHARLES HENRY FELIX, M.D., Physician to the Samaritan Free Hospital for Women and Children; 52, Montagu square, W. *Council*, 1859-60-61.

1863 ROWLAND, JOHN, M.D., Strata Florida, Lampeter, Cardiganshire.

1863 RUSHFORTH, JOSEPH, 83, Oxford terrace, W.

1860 RUSSELL, GEORGE, Bawtry, Yorkshire.

1861 RUSSELL, WILLIAM ALEXANDER, L.R.C.P. Edin.; St. Peter street, St. Alban's, Herts.

1860 SANDERS, GODFREY, F.R.C.S., 8, Brewer street, Maidstone, Kent.

1862 SANGER, THOMAS FREDERICK, Alfreston, Sussex.

1862 SANKEY, WILLIAM, Extra L.R.C.P., 6, Upper Portland place, Wandsworth, S.W.

Elected

1862 SARELL, RICHARD, M.D., Constantinople.

1860 SAUNDERS, CHARLES, Foulsham, Norfolk.

1863 SAVAGE, HENRY, M.D. Lond., Physician to the Samaritan Hospital for Women; Edwards street, Portman square, W.

1859 SCOTT, JOHN, F.R.C.S., Surgeon to the Hospital for Women, Soho square; 65, Harley street, Cavendish square, W.

1860 SEDGWICK, LEONARD WILLIAM, M.D., 11, Hinde street, Manchester square, W.

1863 SEQUEIRA, HENRY LITTLE, 1, Jewry street, Aldgate, E.C.

1860 SEWELL, CHARLES BRODIE, M.D., 76, Guildford street, Russell square. W.C.

1862 SHARMAN, MALIM, 18, New Hall street, Birmingham.

1859 SHARPIN, HENRY WILSON, Surgeon to the Bedford General Infirmary, Bedford.

1860 SHAW, GEORGE, Portland House, Battersea, S.W.

1859 SHAW, JAMES, L.R.C.P. Edin., 52, York street, Cheetham, Manchester.

1859 SHEARMAN, EDWARD JAMES, M.D., Rotherham, Yorkshire.

1859 SHEEHY, WILLIAM HENRY, L.R.C.P. Edin., 4, Claremont square, Pentonville, N.

1862 SHILLINGFORD, ISAAC SHORTLAND, 1, Hill street, Peckham, S.E.

1859 SHIPTON, WILLIAM PARKER, Surgeon to the Buxton Bath Charity; Buxton, Derbyshire.

1860 SHIRLEY, HENRY JAMES, Earl Soham, Wickham market, Suffolk.

1861 SHORTT, JOHN, M.D., Assistant-Surgeon H.M.I. Army, Chingleput, Madras District.

1863 SIMPSON, GEORGE, L.R.C.P. Edin., 7, Bedford place, Old Kent road, S.E.

1861 SISSON, ANDREW, Reigate, Surrey.

1859 SKEGG, ROBERT, 2, St. Martin's place, Trafalgar sq., W.C.

1860 SKINNER, THOMAS, M.D., 1, St. James's road, Liverpool. *Hon. Loc. Sec.*

1859 SLEEMAN, PHILIP ROWLING, F.R.C.S., 16, Buckingham place, Clifton.

1861 SLOMAN, SAMUEL GEORGE, Farnham, Surrey.

Elected

1861 SLYMAN, WILLIAM DANIEL, 9, Wellington road, Kentish town, N.W.

1860 SMART, THOMAS TOVEY, L.R.C.P. Edinb., South villa, Bedminster, Bristol.

1859 SMILES, WILLIAM, M.D., Physician to the Royal General Dispensary, St. Pancras; 43, Bedford square, W.C.

1860 SMITH, CHARLES CASE, F.R.C.S., Consulting Surgeon to the Suffolk General Hospital; Bury St. Edmund's, Suffolk.

1862 SMITH, HENRY, M.D., 13, Park place terrace, Paddington, W.

1862 SMITH, J. SIDNEY, Tiverton, Devon.

1861 SMITH, JOHN BRUMBY, 17, St. James's terrace, Liverpool.

1860 SMITH, JOHN, Coseley, near Bilston, Staffordshire.

1860 SMITH, JOSEPH EVANS, Ewias Harold, near Hereford.

1859 SMITH, PROTHEROE, M.D., Physician to the Hospital for Women, Soho square; 25, Park street, Grosvenor square, W.

1859 SMITH, SAMUEL, F.R.C.S., Senior Surgeon to the Leeds General Infirmary; Park place, Leeds. *Council*, 1860-2. *Hon. Loc. Sec.*

1859 SMITH, WILLIAM, M.D., Consulting Physician to the Weymouth Infirmary and Dispensary; Weymouth, Dorset.

1859 SMITH, W. TYLER, M.D., F.R.C.P., Physician-Accoucheur and Lecturer on Midwifery and Diseases of Women and Children to St. Mary's Hospital; 21, Upper Grosvenor street, W. *Treasurer* & *Vice-Pres.* 1859-60. *Pres.* 1861-62. *Council*, 1863-64.

1860 SNELL, EDMUND, 20, Stepney green, E.

1860 SNOW, JOHN ELLIOT, Walton, near Ipswich.

1859 SOMERVILLE, CHARLES, L.R.C.P., Bloxwich, Walsall, Staffordshire.

1859 SPENCER, GEORGE, 1, Horbury terrace, Notting hill, W.

1860 SPENCER, LAWRENCE, M.D., 129, Church street, Preston, Lancashire.

1862 SPRY, GEORGE FREDERICK, M.D., Staff Assistant-Surgeon, Fort Gomer, Alverstoke, Hants.

1859 SQUIRE, WILLIAM, 6, Orchard street, Portman square, W.

1859 STANTON, JOHN, M.D., 9, Montagu square, W.

1860 STEDMAN, ROBERT SAVIGNAC, Sharnbrook, Bedfordshire.

Elected

1860 STEELE, JAMES, M.D., Miles Platting, Manchester.

1860 STEPHENS, JOSEPH, M.D., 5, Pavilion parade, Brighton.

1859 STONE, JOSEPH, M.D., 84, Bloomsbury, Oxford street, Manchester.

1860 STONE, THOMAS, F.R.C.S., Resident Surgeon to Christ's Hospital.

1859 STOWERS, NOWELL, 30, Newington place, Kennington, S.

1859 STUTTER, FREDERICK AUGUSTUS, Farnboro' House, Upper Sydenham, Kent.

1860 SUCKLING, CORNELIUS BENSON, M.D., Surgeon-Accoucheur, Queen's Hospital, Birmingham; St. Mary's square, Birmingham.

1860 SUMPTER, WALTER, M.D., Clay-next-the-Sea, Norfolk.

1863 SUMTER, THOMAS MOORE, M.D.

1860 SUTCLIFFE, WILLIAM, Staleybridge, Cheshire.

1862 SUTHERLAND, WILLIAM, M.D., 22, George street, Croydon, Surrey.

1862 SUTTON, FIELD FLOWERS, M.D., Balham hill, Clapham, S.

1859 SUTTON, JOHN MAULE, M.D., Bloomfield, Narberth, Pembrokeshire.

1859 SWAYNE, JOSEPH GRIFFITHS, M.D., Physician-Accoucheur to the Bristol General Hospital; Clifton, Bristol. *Council*, 1860-61. *Vice-Pres.* 1862-64. *Hon. Loc. Sec.*

1860 SWEETING, GEORGE BACON, M.R.C.P., Lynn Regis, Norfolk.

1863 SWYER, SEPTIMUS, L.R.C.P. Edinb., 19, Brick lane, Whitechapel, E.

1859 SYDENHAM, JOHN PUDSEY WELCHMAN, Islip, Oxon.

1860 SYKES, RICHARD, Drighlington, near Leeds.

1859 SYMONDS, FREDERICK, F.R.C.S., Surgeon to the Radcliffe Infirmary; 32, Beaumont street, Oxford. *Council*, 1862-64. *Hon. Loc. Sec.*

1861 SYNNOT, ROBERT, M.D., 16, Eaton terrace, Eaton square, S.W.

1860 TAILER, GEORGE WASHINGTON, Bucklesham, near Ipswich, Suffolk.

1861 TANNER, JOHN, M.D., 75, Newington Causeway, S.E.

1859 TANNER, THOS. HAWKES, M.D., F.L.S., 9, Henrietta street, Cavendish square, W. *Hon. Sec.* 1859-62. *Vice-Pres.* 1863-64.

Elected

1859 TAPSON, ALFRED JOSEPH, M.B. Lond., 35, Gloucester gardens, Westbourne terrace, W. *Council,* 1862-64.

1863 TAPSON, JOSEPH ALFRED, High street, Clapham, S.

1862 TASKER, RICHARD THOMAS, Melbourne, near Derby.

1859 TAYLOR, CHARLES, M.D., 4, Bethel place, Camberwell, S.

1859 TAYLOR, DAVID, 2, Kennington row, Kennington park, S.

1859 TAYLOR, EDWARD, Clapham common, S.

1862 TAYLOR, THOMAS, F.R.C.S., 19, Bennett's hill, Birmingham.

1862 TEALE, JOSEPH, 31, Albion street, Leeds.

1862 THANE, GEORGE DANCER, M.D., 9, Hart street, Bloomsbury.

1860 THOMAS, FREDERICK, M.D., Tower terrace, Upper Norwood.

1859 THOMAS, J. HENRY, M.D., Physician-Accoucheur to the Royal General Dispensary, St. Pancras; 22, Pentonville road, N.

1860 THOMAS, RICHARD, Menai Bridge, Anglesea.

1860 THORNE, GEORGE LEWORTHY, M.D., Holcombe Regis, Devon.

1862 THORNTON, WILLIAM HENRY, M.D., Springfield terrace, Dewsbury, Yorkshire.

1860 TIFFEN, ROBERT, Wigton, Cumberland.

1859 TILT, EDWARD JOHN, M.D., Consulting Physician to the Farringdon General Dispensary; 60, Grosvenor street, W.

1859 TIMES, HENRY G., 4, Thayer street, Manchester square, W.

1860 TOMKINSON, RICHARD, Cheadle, Staffordshire.

1861 TOMLINSON, ROBERT SHERRATT, Burton-on-Trent.

1860 TORBOCK, THOMAS REDDISH, M.D., 30, Skinnergate, Darlington.

1862 TRACY, RICHARD T., M.D., Physician to the Lying-in Hospital, Melbourne, Victoria.

1859 TRAER, JAMES REEVES, F.R.C.S., 47, Hans place, Sloane street, S.W.

1859 TROUNCER, JOHN HENRY, M.D., 6, Mount street, Grosvenor square, W.

1860 TUKE, JAMES KINGDON, 1, Devonshire place, Brighton.

1859 TULLOCH, JAMES STEWART, M.D., Surgeon to the Westbourne Dispensary; 1, Pembridge place, Bayswater, W.

1861 TURNER, RICHARD, School hill, Lewes, Sussex.

1863 TUTIN, JOHN HASLEDINE, Surgeon to the Ripon Dispensary, Westgate, Ripon, Yorkshire.

Elected

1861 TWEED, JOHN JAMES, Jun., 14, Upper Brook street, W.

1859 VAUDIN, CHARLES, L.R.C.P. Edinb., Physician to the Jersey General Dispensary; 60, New street, St. Helier's, Jersey.

1860 VARENNE, EZEKIEL G., Kelvedon, Essex.

1860 VINCENT, PATRICK, Wells-next-sea, Norfolk.

1862 VINE, GEORGE JOHN, M.D., 3, Henrietta street, Covent garden, W.C.

1860 WADE, HENRY THOMAS, Trinity terrace, Derby.

1859 WAITS, JOSEPH, 9, Upper Worth street, Poplar, E.

1860 WAKEMAN, PETER RYDER, Bryn Rhûs, Crickhowel, Brecknockshire.

1860 WALES, THOMAS GARNEYS, Jun., Downham, Norfolk.

1859 WALLER, JOHN TURPIN, Flegg Burgh, Norfolk.

1859 WALTON, THOS., 21, Charlotte street, Kingston-upon-Hull, Yorkshire.

1859 WANE, DANIEL, M.D., 20, Grafton street, Bond street, W.

1859 WARDEN, CHARLES, M.D., 39, Temple street, Birmingham.

1860 WALKER, THOMAS HOUGHTON, M.D., Tolleshunt D'Arcy, Kelvedon, Essex.

1860 WALKER, WILLIAM HENRY, L.R.C.P. Edinb.; Aldborough, near Darlington, Yorkshire.

1863 WALTERS, REGINALD BAYLEY, 18, William street, Regent's park, N.W.

1860 WARD, JOSEPH, Hill House, Epsom, Surrey.

1860 WARD, JOHN, Penistone, Sheffield, Yorkshire.

1862 WATKINS, CHARLES STEWART, 11, Chandos street, Strand, W.C.

1859 WATSON, SAMUEL, F.R.C.S. Ed.; Cottingham, Hull.

1861 WATTS, GEORGE HENRY, Thatcham, near Newbury, Berks.

1859 WEBB, J. CRASKE, M.D., 23, Grosvenor street west, Eaton square, S.W.

1859 WEBB, HENRY SPEAKMAN, Welwyn, Herts.

1859 WEBSTER, GEORGE, Peckham Rye, S.E.

1860 WELCHMAN, CHARLES EDWARD ELLIOT, Bore street, Lichfield, Staffordshire.

1859 WELLS, T. SPENCER, F.R.C.S., Surgeon in Ordinary to H.M.'s Household; Surgeon to the Samaritan Free Hospital for Women and Children; 3, Upper Grosvenor street, W. *Council*, 1859.

Elected

1859 West, Henry Reginald, M.D., Harpenden, St. Albans, Herts.

1859 West, Robert Uvedale, M.D., Alford, Lincolnshire. *Council*, 1859. *Vice-Pres.* 1860-61-62.

1859 Westmacott, John Guise, M.D., Medical Officer to the Paddington Provident Dispensary; 10, St. Mary's terrace, Paddington, W.

1860 Wheeler, Daniel, Chelmsford, Essex.

1862 Wheelhouse, Claudius Galen, Surgeon to the Leeds Dispensary, and Lecturer on Anatomy, Leeds School of Medicine; 16, East Parade, Leeds.

1860 White, Frederick George, L.R.C.P., Edinb., West Drayton, Middlesex.

1860 White, William, Rajshahy, Bengal; East India United Service Club, 14, St. James's square, S.W.

1859 Whitehead, James, M.D., Physician to the Manchester Clinical Hospital; 87, Mosley street, Manchester. *Council*, 1859-60-61.

1859 Wilkin, Henry, 39, Connaught terrace, Hyde park, W.

1861 Williams, David John, M.D., Queenscliff, Geelong, Victoria, Australia. *Hon. Loc. Sec.*

1861 Williams, John, Trosnant Lodge, Pontypool, Monmouth.

1860 Williams, Peter Maurice G., Treyarchid, near Trevine, Haverfordwest.

1860 Williams, Robert Hankinson, L.R.C.P. Edinb., Great Eccleston, near Garstang, Lancashire.

1860 Wills, John, M.D., St. Helier's, Jersey.

1861 Wilmshurst, George, Great Hampton street, Birmingham.

1859 Wilson, James George, M.D., Professor of Midwifery, University of Glasgow, Physician-Accoucheur to the Glasgow Lying-in Hospital and Dispensary; Clarence place, Sauchiehall street, Glasgow. *Council*, 1863-64.

1859 Wilson, Jonathan, F.R.C.S., 92, Bloomsbury, Oxford road, Manchester.

1860 Wilson, Robert James, L.R.C.P. Edinb., St. Leonards-on-Sea, Sussex. *Hon. Loc. Sec.*

1860 Winterbotham, John, Castleton, near Sheffield, Derbyshire.

Elected

1860 WISEMAN, WILLIAM WOOD, Springstone house, Ossett, near Wakefield, Yorkshire.

1859 WITTEN, EDWARD W., 6, Gibson square, Islington, N.

1860 WOOD, WILLIAM JAMES, Brightwaltham, Wantage, Berks.

1859 WORSHIP, J. LUCAS, Riverhead, Sevenoaks, Kent.

1860 WRIGHT, GEORGE, Middleham, W. Bedale, Yorkshire.

1861 YOUNG, WILLIAM BUTLER, 5, Castle street, Reading, Berks.

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ADVERTISEMENT.

The Society is not as a body responsible for the facts and opinions which are advanced in the following papers and communications read, or for those contained in the abstracts of the discussions which have occurred, at the Meetings during the Session.

OBSTETRICAL SOCIETY

OF

LONDON.

SESSION 1863.

ANNUAL GENERAL MEETING, JANUARY 7TH, 1863.

DR. TYLER SMITH, President, in the chair.

A PREPARATION of concentrated beef-tea was exhibited to the Society by Mr. Buckle, culinary chemist, of North Place, Gray's Inn Lane, convenient for administration in cases where expeditious employment of nutritive material is required.

ON VAGINAL LITHOTOMY.

By J. H. AVELING, M.D., Sheffield.

NATURE has two ways of ridding the female bladder of stones. She either dilates the urethra and expels them through it, or establishes an opening in the vesico-vaginal septum and allows them to fall into the vagina. Instances of the former are numerous, but cases in which the latter has occurred are, comparatively speaking, rare.[1]

An opening in the vesico-vaginal septum may be caused

[1] M. Caumond relates a case in which the stone ulcerated through the abdominal integuments.

by a stone in the bladder in two ways, either by *ulceration*, resulting from the constant contact of the calculus; or by *sloughing*, following prolonged pressure received between the fœtal head and the stone during labour.

Cases in which the former has occurred have been recorded by Fabricius Hildanus,[1] Sir Astley Cooper,[2] and Sir Benjamin C. Brodie;[3] and others in which the latter has happened have been met with by Guillemeau,[4] Willoughby,[5] Smellie,[6] Ryan,[7] Gosset,[8] Erichsen,[9] I. Baker Brown,[10] &c.

But neither of these processes seems to have primarily suggested the vaginal method of performing lithotomy in the female. The ease with which stones may be cut down upon and extracted from the bladder, while in a prolapsed condition, seems rather to have first prompted the operation. It was first put into practice in the latter part of the sixteenth century by Rousset[11] who incised the prolapsed bladder of a woman aged sixty-eight, and extracted eleven stones. It was afterwards performed by Ruysh[12] in 1681, who was the first to bring the lips of the wound together, which he succeeded in doing by passing a band of lead round the prolapsed tumour. Tolet[13] also extracted six stones from a prolapsed bladder in this way; and the operation was repeated by Barlow[14] in this country, in 1814, when he extracted ten stones, the wound healing in two months.

1 'Opera Omnia,' 1646. Cent. I, Obs. lxviii. Cent. III, Obs. lxix.
2 'Lectures on Lithotomy, Lancet,' 1824, p. 697.
3 'Lectures on Diseases of the Urinary Organs,' 1835, p. 321.
4 'Midwifery,' 1642, Book II, chap. xi, p. 148.
5 'Country Midwife's Opusculum,' p. 305.
6 'Cases in Midwifery,' Collection XI, No. I, Case 2.
7 'Manual of Midwifery,' 1841, p. 305.
8 'Lancet,' November 29th, 1834.
9 'Medical Times and Gazette,' Jan. 5th, 1856.
10 'Surgical Diseases of Women,' 1861, p. 141.
11 Velpeau, 'Médecine Operatoire,' 1839, vol. iv, p. 600.
12 'Observationes Anatomico-Chirurgicæ, No. 1.
13 'Journal des Savans,' 1700.
14 'Essays on Surgery and Midwifery,' 1822, p. 132.

But although this simple kind of vaginal lithotomy was the first to be performed, the real prototype of the operation now practised was adopted only a few years later; for Fabricius Hildanus having met with a case in which a calculus had partly ulcerated its way through into the vagina, on July 18th, 1598, enlarged the opening with a knife, and extracted a stone of the size of a hen's egg, without force, hæmorrhage, or pain; and obtained a perfect cure by the following after-treatment. Inunction of the abdomen and groins with oil of roses, &c.; a pessary of tow soaked in white of egg placed in the vagina; injections for three days of plantain water and oil of almonds to the seat of pain, and by daily washing out the bladder with a decoction of nine sorts of herbs and honey.

The success which attended this timely assistance of a natural effort induced Hildanus to propose the following mode of operating; and to any one who would know why he does so, he replies, "Causa lector benevole est, quod natura ipsa viam et quànam ratione operatio instituenda esset, mihi monstrarit." A curved scoop is first to be introduced through the urethra into the bladder, and having found the stone, the handle is to be raised to the pubis and the stone brought forward, so as to protrude into the vagina. With a knife, sharp only at the point, the stone is then to be cut down upon and extracted through the incision by a pair of curved forceps, the patient being placed in the ordinary lithotomy position. He fully appreciates the difficulty of healing the wound, but says that one produced by a cutting instrument is much more likely to heal than one which is the result of ulceration.

This operation was proposed and published early in the seventeenth century. It is remarkable that about the same time the two other steps required to render the operation perfect were also proposed. Fabricius ab Aquapendente[1] advocated the use of metallic sutures in preference to sutures of thread, because the former were smooth and polished, and neither eat their way into the flesh, ulcerated out, stretched,

[1] 'Opera Chirurgica,' 1648. 'Med. Times,' Jan. 22nd, 1859.

broke, nor rotted; and Roonhuyse[1] proposed the plan of bringing together the lips of openings in the vesico-vaginal septum by means of sutures. Is it not marvellous that for two long centuries these facts should have been read and re-read, and yet that no mind should have shown itself to be in possession of that little amount of synthetical power which would have made its owner most famous, and would have saved many a poor woman from a life of suffering!

It is not impossible that the progress of vaginal lithotomy may have been impeded by the aphorism of Hippocrates, which says that a severe wound of the bladder is deadly, for we find, only ninety years ago, Bromfield[2] commenting upon the two cases of Hildanus as follows: "In these cases (stones ulcerating through into the vagina) the perforation was so gradually effected, that sphacelation of the whole bladder did not follow; but it would be extremely different, I should imagine, had a wound been made in the membranous part of the bladder, and the same afterwards torn and contused by the passing of a very large stone; and I dare say, that respect will still be paid to the divine Hippocrates, and that no one will wound the body of the bladder intentionally in performing the operation of lithotomy." But although vaginal lithotomy was not brought to perfection as rapidly as it might have been, still the operation never seems to have been lost sight of. Improvements from time to time were suggested—a notable one was introduced in the latter part of the last century by Mery, who, instead of the scoop of Hildanus, proposed the use of a grooved staff upon which he cut instead of the stone. Other modifications were also introduced, until at length the operation assumed the form so well described by Chelius,[3] and still more fully by Velpeau.[4] Each operator, however, had his own way of performing it. Some would not use the gorget to depress the posterior wall of the

[1] 'Heebkonstige Anmerkingen,' Amst., 1663.
[2] 'Chirurgical Observations,' 1773, vol. ii, p. 283.
[3] 'System of Surgery,' (South's,) vol. ii, p. 621.
[4] 'Médecine Operatoire,' vol. iv, p. 601.

vagina, but introduced the knife flat upon the finger, and then turning up the edge made the incision upon the staff. Some held the staff during the time of making the incision, others held the gorget. Some made the incision from before backward, others in the opposite direction. Some divided a portion of the urethra, others avoided it with the greatest care. Some made the incision straight, others oblique. But all these variations had little effect upon the ultimate result. Do what they might, the dreaded fistula would occur: wonderfully seldom, however, if it be true that it only happened once in four times, as Velpeau states; and greatly at variance with the opinion of one of our first surgeons, who writes: "This operation is necessarily followed by a vesico-vaginal fistula, which will be required to be closed by a subsequent plastic operation."[1] Unfortunately they were not able to see that the secret of success did not lie in the mode of operating. Hildanus was as successful as Clémot. Up to the point of the extraction of the stone the operation was practically perfect. It was in the treatment of the wound that surgeons, for two centuries, continued to be at fault.

On the 24th of January, 1833, Mr. Gosset,[2] a surgeon in London, performed vaginal lithotomy upon a woman, aged forty-five, and extracted a large stone, by enlarging with a bistoury a fistulous opening which already existed in the vesico-vaginal septum. On the 19th of May of the same year incontinence of urine continuing, he performed that operation for vesico-vaginal fistula, using metallic sutures, which not only cured his patient, but rendered his name for ever celebrated in the annals of snrgery. This case was the harbinger of the operation now performed, and we in England cannot be too proud of the fact. But in lauding our own countryman, let us not forget the honour due to Dr. Sims. It is only by the reiteration of a blow that the desired effect can sometimes be produced, and to him we are indebted for that last good stroke which has rung

[1] 'Erichsen's Surgery,' 1861, p. 1039.

[2] 'Lancet,' November 29th, 1834.

through the whole civilised world, and has been the means of forcing upon the attention of the profession the ready and true method of curing one of the most loathsome and miserable of all complaints.

The following is a list (doubtless a very imperfect one) of the number of times vaginal lithotomy has been performed, together with the names of the operators or recorders of the cases, from the latter part of the sixteenth century up to the present time.

Foreign.		British.	
Rousset	1	Gooch	3
Ruysh	1	Denman	2
Hildanus	1	Barlow	1
Bussière	1	Gosset	1
Tolet	1	Erichsen	1
Faure	1	Ferguson	1
Clémot	3	Lane	1
Flauber	4	Lyon	1
Rigal	2	Overend	1
Philippe	1		
Castara	1		
Lagouache	1		
Macario	1		
Lavielle	1		
Rigal, Junior	1		
Sims	1		
	22		12

Total 34.

To this list I have the gratification of adding one more case, the success of which I hope will be sufficient excuse for troubling the Society with its details. Mrs. D—, æt. sixty-three, the wife of a clergyman, was first troubled with a constant desire to pass water in the latter part of 1861. Walking soon became painful, and after it blood was sometimes passed. Latterly the urine would only flow while the patient was on her back.

Having detected a stone I endeavoured to measure its size with a lithotrite, but failed in consequence of the

intense pain produced. Two or three similar attempts were made, but without success. Very little urine could be retained in the bladder, and its extreme irritability caused it to contract upon the instrument. The patient was troubled with flatulence, which increased her sufferings greatly; in fact, three days before the operation I was called up in the night, and had to administer chloroform before the pain could be subdued.

November 23rd, finding the patient's strength failing I determined to perform vaginal lithotomy; Drs. Elam, Jackson, and Keeling, kindly giving me their able assistance. Chloroform having been administered, the patient was placed on her back in the usual lithotomy position. Bozeman's speculum was introduced, and held in position by an assistant. Skey's staff, slightly modified, was next passed into the bladder, and given to another assistant, who pressed the handle backwards so as to cause the vesico-vaginal septum to bulge into the vagina. A long lithotomy knife was then thrust directly down into the groove of the staff, and an incision one and a quarter inch in length made, commencing one and a half inch posterior to the meatus urinarius. The staff was then withdrawn, and a pair of curved forceps introduced into the bladder, from which a small, rough stone was easily extracted. At this point there was a little delay, caused by sickness, and during each effort of vomiting the wound was seen to gape widely, and a quantity of dark venous blood to flow forth.

The bladder having been well syringed out with warm water, four sutures of silver wire, No. 28 gauge, were introduced, by means of a curved tubular needle, a quarter of an inch apart. Having adjusted them, eight or ten gilt beads were placed over the ends of each suture, and run down to the lips of the wound. These were kept in their proper position by perforated shots also passed over the ends of the sutures and tightened upon them by a pair of strong forceps. The ends of the sutures were then clipped off close to the shots and the speculum withdrawn. The whole operation, including the time lost during the vomiting, lasted twenty-three minutes.

The patient having been carried to bed, a No. 9 flexible catheter was introduced and kept constantly in the bladder. In the evening it became blocked by a small clot of blood, and had to be removed. On reintroducing it, it was found that three ounces of urine had accumulated. The patient was for the first two days much troubled with sickness, which could only be controlled by iced water, or ice itself.

26th.—During a severe pain, caused by flatulence, a quantity of urine was forced out by the sides of the catheter, and not knowing that it had taken this course, I had some fear that the sutures had given way, but no such accident had occurred, and the patient from that time went on without a bad symptom.

30th.—Seven days after the operation the wound was examined and found to be completely healed. The shots were clipped off, the beads removed, and the sutures allowed to separate.

December 3rd.—The sutures were withdrawn, and the patient allowed to retain her urine for an hour. This time was gradually increased up to the 6th, when she was allowed to pass her water naturally.

4th.—When called in the morning was found up, and washing herself, and said that she never felt better in her life.

Medical treatment.—During the first twenty-four hours three grains of opium were given by the mouth. After this a grain of the aqueous extract was administered night and morning in a quarter of a pint of strong beef-tea in the form of an enema. The urine was kept alkaline or neutral by small doses of the bicarbonate of potash. On the eighth day the bowels were freely moved by a castor oil enema. There was never any fever to contend with, and the pulse never exceeded 90.

Position of the patient.—During the operation the supine position was chosen, in consequence of its favouring the extraction of the stone. When the patient is thus placed the stone has been observed sometimes to fall by its own

weight into the vagina directly the incision has been made. During the whole time of the catheter being retained in the bladder, the patient preferred, and was allowed to lie upon her back. All soreness was obviated by the use of a water cushion.

Method of fastening the sutures.—In this case it will be noticed that the operation was conducted in the ordinary way, with the exception of the manner in which the sutures were secured. It would not be fair, perhaps, to say that it was in consequence of this modification that the wound healed more rapidly than in any other case I have yet met with; but at all events it may be confidently stated that the method has not a retarding effect upon the healing process. There are, however, two objections to the use of the gilt beads. 1st. Unless great care be taken, much time may be lost in placing them over the ends of the sutures. 2nd. In removing them the last bead is so imbedded in the tissues that it is difficult to reach and take off. This rising of the lips of the wound has always been a source of difficulty in the removal of sutures, more especially if they are simply twisted, as is the practice most usually adopted now. Professor Simpson, in speaking of the removal of this kind of suture, says: "When simple stitches are used without any button or splint in the manner now recommended by Dr. Sims, great care is needed to cut through the wire in the loop, for each suture is usually sunk deep into the tissues, and if the projecting twisted portion be removed, the part that remains will get more imbedded, and its removal will be rendered difficult."[1]

To obviate this difficulty the gilt bead plan was adopted, and as has been seen with perfect success; but to do away with the two objections mentioned, I propose in future instead of the beads, that a fine coil of wire should be used. And finding the difficulty of either writing or speaking of anything without a name, to avoid the repetition of lengthened descriptions I shall call the contrivance a "coil-clamp."

The coil-clamp may be easily made in the following way.

[1] 'Medical Times and Gazette,' Jan. 8th, 1859.

Having obtained a moderately large pin, wind a piece of No. 28 wire round it, each coil touching the other, until you have a piece of the required length; slip it off the pin, and cut off the portion at each end which is not closely coiled. A shot may be perforated with a stout needle or by means of a small instrument I have had made for the purpose, and you have then all that is required.

In using the coil-clamp, the suture should first be adjusted either by the fingers or by a perforated or forked adjuster. The coil should then be passed over the ends of the suture, and run down to the lips of the wound. It may now be retained in its position either by tightening a perforated shot upon the suture, or still more simply, if the wound can easily be got at, by turning the ends of the suture down over the sides of the coil. If the shot is used the suture should be cut off close to it, if however the ends are merely turned back, a portion about the eighth of an inch should be left. The advantages to be derived from the use of the coil-clamp are as follows:

1. The ends of the suture are brought together more evenly than by the method of twisting.

2. Sutures of thicker wire may be used, which are less liable than finer ones to cut their way out.

3. The lips of the wound may be approximated with any degree of tightness. If a suture is drawn too tight, it destroys the vitality of the portion it encloses, and quickly ulcerates out.

4. The ends of the suture are effectually and easily secured.

5. All knots, contortions, and prickly points are avoided, and nothing but a round and unirritating surface is left in contact with the vaginal walls.

6. The coil being made of flexible wire may be bent into any form, and adapted to the surface upon which it has to lie.

7. The removal of the suture is most easily effected. By a simple clip of the scissors across any part of the coil, the ends of the suture are at once set at liberty, and of sufficient

length to enable the operator to bend them back and withdraw them, with the least amount of disturbance to the newly-formed cicatrix.[1]

Mortality of vaginal lithotomy.—Out of the thirty-five cases of vaginal lithotomy which I have been able to meet with, death has only followed in one (Mr. Erichsen's), and in this case it cannot be properly said to have been caused by the operation. M. Velpeau remarks that the consequences of vaginal lithotomy are very simple. No artery of any size is wounded, the peritoneum is too far off to run the least risk, and the cellular tissue of the vesico-vaginal septum is too dense to allow of the infiltration of urine. In short, vaginal lithotomy may be now looked upon as an established operation; for even the chance of vesico-vaginal fistula occurring can be no longer urged as an obstacle. There can be little doubt but that for the future when lithotomy has to be performed on the female, the vaginal method will be the one invariably adopted. It will, however, never be an operation widely practised, for no one must undertake it who is not also ready to treat a vesico-vaginal fistula should it occur, and the number of assistants and instruments, and the extreme delicacy of the manipulations, necessary for the proper performance of this operation will doubtless deter many. But although vesical calculi can be safely and successfully removed by vaginal lithotomy, still in some cases where the stone is small and friable, it ought never to supplant the more simple processes of dilatation and crushing. Yet in every case, where, owing to the age of the patient, the size of the stone &c., there exists the least apprehension of incontinence resulting, there can be little doubt as to which of the operations should be selected.

Relations of vaginal lithotomy to midwifery.—If a large calculus is discovered in the bladder of a pregnant woman, what is to be done? Is it to be left alone, with the hope that, when labour comes on, the medical man may arrive in

[1] Operators who use silver wire should be careful to get it pure. The standard silver wire sold by instrument makers is much less flexible than that made of virgin silver.

time to push it, if possible, above the brim before the child's head has entered the pelvis; or is it to be removed? M. Philippe,[1] of Reims, extracted by the vaginal method from a pregnant female, a stone weighing nine ounces. Deschamps[2] also performed lithotomy upon a pregnant female, and Mr. Henry Thomas,[3] of this town, performed the same operation upon a woman four and a half months advanced; all of which cases were successful. The testimony of facts seems, then, to be in favour of the removal of the stone should it be detected during pregnancy, for the woeful consequences of a calculus coming down before the child's head during labour may be learnt from the seven authors mentioned in the early part of this paper. One of the cases, however, there referred to has never been published, and as it is I believe the first British case of the kind on record, I take this opportunity of making it known. The patient, whose maiden name was Uvedale, was the wife of Sir Edward Griffin, knight, of Brabroke, Northamptonshire. The medical attendant was Dr. Percival Willoughby, of Derby, who relates the case as follows:—"I was desired, and sent for by a lady, anno 1640, that, in her travaile, was disquieted with some unusuall and inward paines in the birth-place, and would not endure to put down her throwes.

"The head came first, but the ignorant midwife, not knowing how to assist her, let the child stick at the neck and shoulders after that the head was in the world.

"The ladie's paines were augmented. Shee called mee to help her, but the midwife would have had mee put by, and said that my lady must stay God's time and pleasure. I put the midwife aside, and finding the child's head in the world, I assured her that she was but ignorant in midwifery.

"I slid my finger under the child's armpit, and nudging the child on one side, and drawing withall, the lady was immediately delivered.

[1] Velpeau, 'Médecine Operatoire.'

[2] 'Traité de l'Oper. de la Taille,' tome iv, p. 9.

[3] 'Lancet,' Sep. 29th, 1838.

"Shee was well for three or foure dayes, then shee began to bee sorely pained, and to have an ill and unsavoury smell in her privy parts, and could not hold her water.

"Small greety stones, in the time of her travailing, were fallen downe into the neck of her bladder before the child had entered the bones. These stones were the cause of the augmenting of her sufferings, and the child's head and body, as it passed, pressed on these stones. The vagina uteri was hurt and bruised, soreness followed in the flesh, and a large piece rotted and separated in the neck of the bladder, and the stones came away wrapped in ye flesh and skins.

"She recovered in part after long time, with some sufferings, and has had many children after this mishap, but never afterwards could hold her water. I was all the time with her during her cure, and I greatly pitied her good husband."[1]

There is still one other question bearing upon this subject. If a stone be forced down before the fœtal head during labour, what is to be done? I am indebted to my friend, Mr. Henry Jackson, for the details of the following interesting case, in which, notwithstanding this unpromising state of matters, labour was completed without any unpleasant consequences.

Case.—Mrs. B—, the mother of a large family.—In the last confinement but one, a difficulty occurred in the passing of the child, but as it was delivered nothing more was said of the obstacle. In about eighteen months she again was confined, this time with convulsions, and the medical attendant found a hard body immediately in advance of the fœtal head, considerably obstructing its descent. Labour,

[1] The 'Country Midwife's Opusculum,' or 'Vade Mecum,' p. 305. A well written MS. volume of nearly 460 pages, now in my possession, and full of most curious matter. Denman had seen it, and has quoted from it in his 'Introduction to Midwifery.' Dr. Willoughby was the son of Sir Percival Willoughby, a B.A. of Oxford, and an Extra Licentiate of the Royal College of Physicians, of London (see Dr. Munk's work).

however, was effected, and the next day she was seen by another medical practitioner, who diagnosed calculus in the urethra. After several months of suffering, the patient allowed Mr. Overend, of this town, to cut down upon the stone and remove it by the vagina. Pledgets of dry lint were frequently introduced into the vagina, and the wound healed in three weeks without the use of the catheter, which could not be borne. The stone, which is nearly spherical, measures four and a half inches in circumference.

But although in this remarkable case the calculus had only the effect of delaying labour, it would scarcely be safe to calculate on such a happy termination in every case. In six of the seven cases already alluded to, vesico-vaginal fistulæ resulted; and in the other, in which craniotomy was resorted to, "great irritation of the bladder followed, and the woman sank into a feeble state."

These facts seem to point most urgently to the necessity of interference in all cases in which labour is found to be obstructed by calculi. What the character of the interference should be, must depend upon the peculiarities of each case. If the head can be easily raised, the stone may perhaps be pushed up and retained above the brim, and the labour allowed to proceed in the natural way. If the stone be small and in the urethra, it may in some cases, perhaps, be extracted with or without dilatation; but in those cases in which the stone is large, the head well down, and the pains strong, vaginal lithotomy is the only proper resource, and the sooner it is practised the better. This course of treatment will be found recommended in the works of Drs. Denman,[1] David D. Davis,[2] and Fleetwood Churchill.[3]

Mr. Spencer Wells congratulated Dr. Aveling upon the successful result of his interesting case, and heartily concurred in the tribute he had paid to the services of Dr. Marion Sims. But he (Mr. Wells) had begun to doubt whether the success which had followed the operation for the cure of vesico-vaginal fistula of

[1] 'Introduction to Midwifery,' 1832, p. 254.
[2] 'Obstetric Medicine,' 1836, p. 884.
[3] 'Theory and Practice of Midwifery,' 1850, p. 228.

late years was so much due to the use of wire sutures as to the improvements which Dr. Sims had originated in the mode of bringing the fistula into view, accurately paring the edges, and bringing them into perfect apposition. Provided the edges of a fistula were thoroughly pared, and kept in close apposition, it was probably of little importance how this was done. A year ago he (Mr. Wells) was as strongly in favour of metallic sutures as anybody; but latterly a wider experience had taught him that it is only after five or six days that wires show any advantage over silk, and before that time the sutures ought to be removed. Then silk offers the great advantages over wire of being more easily applied, of not requiring so large a needle to pass it, of the ends being much less irritating, and of being more easily removed. After many comparative trials on different parts of the same wound with wires of silver, iron, lead, platinum, and aluminium, and with fine catgut, horsehair, telegragh wire, india-rubber thread, and the fine strong silk known as "Chinese twist," he had become convinced that wires offered no advantage over silk, while silk offered many advantages over every other material used for sutures. In a recent case he had closed a vesico-vaginal fistula by five silk sutures, and perfect union resulted, although no catheter was used. The supposed necessity for the use of the catheter after closing vaginal fistulæ, was another error which time was correcting. The urine is by no means so irritating a fluid as some believe. The lower orders use it as a lotion to the eyes and to sore legs; and it certainly cannot differ much from the dilute saline solutions constantly prescribed as astringents or stimulants. The use of the catheter is the most troublesome part of the after-treatment, and often most distressing to the patient. One of his patients really could not bear it, yet she did perfectly well; and lately he had not used it at all, union taking place quite as well as when it was used, and the patient being much more comfortable. With regard to stone in the bladder during labour being a cause of vesico-vaginal fistula, he had once removed in the Samaritan Hospital a large stone through a fistula before closing it; but it was very questionable whether it could often be necessary to remove a calculus through the vagina when no fistula existed, or to run the risk of making a fistula to remove a stone. Lithotrity was very easily performed in women; and large fragments of stone passed readily through the short female urethra, so that no form of lithotomy could often be called for. Simple dilatation of the urethra was not likely to answer in any case not suitable for lithotrity, and its effects are very uncertain —a large stone might be removed and no incontinence follow; but incontinence might follow removal of a very small calculus. The usual aid to dilatation by incising the urethra was still worse. A surgeon of very large experience had told him that he had done it for two adults and seven children, and "they were all dribblers."

Where, from some exceptional condition of bladder or stone, lithotrity was inappropriate, vaginal lithotomy might, therefore, become a valuable operation; but experience was still wanting to show that it was better than, or as good as, the lateral operation so successfully practised by Dr. Buchanan, of Glasgow. The subject was a comparatively new one, and Dr. Aveling deserved the thanks of the profession for the light he had thrown upon it.

After the ordinary meeting, the business of the annual meeting commenced.

The Report of the Auditors of the accounts of the Treasurer for the year ending December 31st, 1862, was then read, from which it appeared that the balance in the hands of Treasurer is £204 9*s.* 2*d.*, and that during the year a sum of £400 had been invested in the Funds in the names of the Trustees of the Society, namely, Dr. Tyler Smith, Dr. Oldham, and Dr. Gream.

The balance-sheet read by the Secretary showed that the Society had received during the year £478 15*s.* as subscriptions from Fellows, and £48 9*s.* 3*d.*, as proceeds of the sale of the 'Transactions' of the Society.

The Report was unanimously adopted—

Dr. Greenhalgh, in moving the adoption of the Report of the Auditors, alluded to the satisfactory condition of the funds, and also to the fact that the sum received during the past year in subscriptions exceeded that of any previous year, the respective amounts received during the years 1859 '60 '61, and '62, being £336, £413, £445, and £478; while a total sum of 100 guineas had been paid into the Society's hands in respect to the proceeds of the first three volumes of the Society's 'Transactions.' He also congratulated the Society on the promising condition of the library.

Dr. Meadows seconded the resolution, which was carried unanimously.

Dr. Richards moved, and Mr. Mitchell seconded the following resolution, which was carried by acclamation :—

"That the best thanks of the Society be and are hereby

given to the President and officers of the Society for their services during the past year. That the best thanks of the Society be in an especial manner given to the retiring President, Dr. Tyler Smith, and to the retiring Honorary Secretary, Dr. Tanner: to Dr. Tyler Smith for the able and efficient manner in which he has presided over the meetings of the Society for the past two years; and to Dr. Tanner, for his valuable and zealous services as Honorary Secretary from the commencement of the Society, four years ago, until the present time."

Dr. Tyler Smith and Dr. Tanner respectively returned thanks.

The list of donations during the past year was read, from which it appeared that 605 volumes had been presented to the Society, by Sir Charles Locock, Bart., Dr. Clay, of Manchester, and others.

The following gentlemen were elected officers of the Society for the year 1863:—

Honorary President.—Sir Charles Locock, Bart., M.D.

President.—Dr. Oldham.

Vice-Presidents.—Dr. J. Hall Davis, Dr. Druitt, Mr. Fergusson, Mr. Robert Hardey (Hull), Dr. G. Swayne (Bristol), and Dr. Tanner.

Treasurer.—Dr. Barnes.

Honorary Secretaries.—Dr. Graily Hewitt and Dr. Braxton Hicks.

Other Members of Council.—Mr. H. Woodruffe Bailey (Thetford), Dr. Clay (Manchester), Dr. Wm. Fred. Cleveland, Dr. Chas. Drage (Hatfield), Dr. Gream, Dr. Greenhalgh, Mr. F. Seymour Haden, Dr. Harley, Mr. Isaac Harrison (Reading), Mr. Henry James, Dr. J. C. Langmore, Dr. Alfred Meadows, Dr. Madge, Mr. Joseph Thos. Mitchell, Dr. W. Tyler Smith, Mr. Fred. Symonds (Oxford), Dr. Alfred Joseph Tapson, and Dr. Jas. Geo. Wilson (Glasgow).

The President then delivered the Annual Address.

ANNUAL ADDRESS,

Delivered by the President, W. Tyler Smith, M.D., F.R.C.P., &c.

It is impossible not to congratulate the Society upon its continued financial and numerical success. We are still growing and expanding year by year; the volume of 'Transactions' for 1862, and the reports of our meetings for the past year, will bear ample testimony to the progressive development of the Society in a scientific and practical point of view. Our library has received handsome additions by the donations of Sir Charles Locock and Dr. Clay, in addition to the ordinary increase by the presentations of newly published works. We must now begin to look out for some local habitation in which to arrange our library properly, and consider as to the appointment of a Librarian. This important part of the Society will not be complete until we can render the library really useful and accessible to the Fellows. We can never hope to rival existing medical libraries in richness and extent, but a large library of purely obstetrical works would be unique, and in the highest degree valuable to those engaged in the practice of midwifery. This, rather than the collection of general medical and surgical works is what we should aim at.

The loss of Fellows by death during the past year has been unusually large. Among them I have with great regret to refer to the death of Dr. Metcalfe Babington, ere he had scarcely reached the meridian of life. Dr. Babington was a scholar and a gentleman, eminent for his genial wit and social qualities, and he had a warm share in the foundation of the Obstetrical Society, having ably seconded one of the principal resolutions at the meeting for its inauguration in 1858. He left no published works, but filled various important posts with great ability and success. He was elected a Vice-President of our Society in 1861.

We have also to deplore the loss of a veteran accoucheur in the person of another Vice-President of the Society, I refer to Dr. Waller. He had had a long career of usefulness in practice, and as Physician-Accoucheur and Lecturer on Midwifery at St. Thomas's Hospital. Midwifery is indebted to him for an excellent edition of the classical work of Denman, and for his labours on the subject of Transfusion, an admirable and exhaustive paper on which he published in the first volume of our 'Transactions.' Though he had lived to a comparatively ripe age, he was in full possession of health and vigour, when he was cut off by the deplorable accident which cost him his life. As regards the great and important subject of the transfusion of blood, I trust the mantle of Dr. Waller will fall upon some younger Fellow of the Society, convinced as I am that it is one which must lead to highly useful results. Among the Provincial Fellows of the Society our losses have been large, including among them Mr. Welton Jessop of Cheltenham, Mr. Smith of Crawley in Sussex, Mr. Rowland of Wrexham, all of whom were distinguished practitioners in their several localities.

He could not but draw attention to the numerous trials for malpraxis in midwifery which had taken place during the past year. It was evident that medical men were more obnoxious to these charges in the practice of midwifery than in medicine or surgery. The accoucheur was often surrounded in the lying-in room by ignorant persons, ready to construe his conduct unfavorably, and blame him for any and every thing that went wrong. Some of the worst of these trials arose out of cases in which the patients were at first attended by midwives, and in which medical men had only interfered under circumstances of danger and difficulty. They were thus often made to bear responsibility which did not fairly belong to them. He would refer especially to the case of Mr. Robinson, a Fellow of the College of Surgeons, who had been tried and found guilty of manslaughter at the Central Criminal Court. In this instance a midwife attended the patient, a very poor woman,

during her labour, and she admitted having given ergot before the birth of the child. Mr. Robinson was called at midnight to remove a retained placenta, going as a matter of charity. On examining he found what seemed a loop of funis in the vagina; passing his hand along it and through what he thought the os uteri, he felt a mass of about the size of the placenta which he drew down. Finding some difficulty, he divided the supposed funis in two places, and then found to his horror that he had been dealing with intestine. At the post-mortem and inquest it was shown that a laceration existed at the upper part of the vagina, through which the bowel had passed, and the placenta was still in utero, with the funis broken short off. A great prejudice was created at the inquest by its being stated ignorantly that Mr. Robinson might have caused the laceration with his hand. It was also implied then and at the trial that he was intoxicated, but of this no evidence whatever was adduced.

The real facts were no doubt that the laceration occurred during labour, probably from the ergot; that the midwife tried to remove the placenta, and in doing this tore the umbilical cord from its attachment. This was not mentioned to Mr. Robinson. The loop of intestine descended, as it often does in such cases, through the rent. Mr. Robinson, called at this peculiar juncture, fell as it were into a trap, and though it is difficult to understand how any one with a proper knowledge of midwifery should have cut the supposed funis and placenta away, I do not think it was a case in which a verdict of manslaughter, with its heavy moral and legal punishment, was at all deserved. It is a remarkable fact that the public journals have contained within the last twenty-five years three other cases of rupture of the uterus and vagina in which the intestine had passed through the rent and been mistaken for and removed as funis; so that the error is not so impossible as it may appear. In all the cases death occurred, and the accoucheurs were tried as criminals and found guilty of manslaughter! In three out of the four cases, the rupture

occurred in the practice of midwives, and the medical men were called in when the intestine lay in the vagina. In my manual of Obstetrics, I point out this danger to practitioners, and refer to the cases in which it occurred.

After the trial I thought it my duty to see Mr. Robinson in person, and from him I learned some of the foregoing facts; and I also obtained an interview with the learned judge who tried the case. I took with me a piece of ileum and a portion of funis of equal length, and showed Mr. Justice Mellor that it could hardly be considered criminal to mistake one for the other in the dark, especially when no one would dream of finding intestine in such a situation. The judge very candidly stated that he regretted the verdict, and had charged the jury for an acquittal. He said he thought the jury had acted under the erroneous impression that even if it had been the funis it would have been wrong and criminal to have cut it—that is, that cutting the funis would have hurt the woman. After this, I memorialised Sir George Grey, and hoped to have obtained a remission of the sentence, but I only received in reply a communication stating that the matter had been inquired into, and no sufficient reason had been found for interfering with the verdict. I think all candid medical men must concur in the opinion that considerable wrong was committed in this instance, and it is certain that in midwifery while the law takes very little care about medical education, it inflicts heavy penalties whenever those who practice are found wanting. It was most absurd that an ignorant jury should have had to decide in such a case as that which I have related.

I have great pleasure in referring to the progress of ovariotomy during the year, as a matter of which all obstetricians may well feel proud. In no other branch of the profession, has a more splendid advance been made in recent years than in the operation, proceedings for the cure of diseases of women, and the accidents arising out of childbirth. It has appeared to me that obstetricians who are true to their calling will perform these operations so as to make them a recognised

part of obstetric practice. This is especially true I think of ovarian disease and ovariotomy. We are almost invariably consulted in the first instance in cases of ovarian dropsy. In its diagnosis from fibrous tumours of the uterus and from pregnancy, the skill of the accoucheur must always be depended upon rather than that of the pure surgeon. It cannot be said that chirurgical operations are foreign to us, for the great operations of midwifery are purely surgical, and the manifest tendency of the present age is against our restriction to mere midwifery. It is from these convictions that I have myself practised ovariotomy. The obstetrician would unhesitatingly perform the operation of tapping in ovarian dropsy, he would incise the abdomen in a case of pelvic abscess, or put a ligature on a polypus. In ovariotomy, a combination of these points of practice are required, and I do not see why we should not execute them in a group as well as singly. My conviction is, that in the practice of ovariotomy, the highest degree of success will be obtained by obstetricians.

There is another point which has excited considerable attention in our department of practice during the past year, namely, the question as to who was the real inventor of the midwifery forceps. The amount of doubt which has surrounded this great and beneficent discovery, has been caused by the culpable attempt of its author and his family to keep it a secret, partly because of its pecuniary value, and partly, as they averred, because its general knowledge would lead to its mischievous employment by ignorant persons. This latter argument may seem absurd in the present day, but it must be remembered that it refers to midwifery as practised more than two centuries ago. It was nearly a century after its first discovery that its use was promulgated by Chapman. The education of those engaged in the practice of midwifery had no doubt in this time improved, but even then the havoc caused, and the rash and unskilful use of the instrument was such, that many authorities debated seriously whether it was a curse or a blessing. The history of the Chamberlen family, if time permitted our dwelling upon it,

is most interesting and instructive. We know of four generations, all honorably distinguished in the profession. The founder of the family was Mr. Peter Chamberlen, a surgeon-accoucheur of the City of London. His son, Dr. Peter Chamberlen, was a Fellow of the College of Physicians, and the most eminent member of his distinguished family. He appears to have possessed some of the eccentricities of genius, and Dr. Munro in his Roll of the College, informs us that he was formally expelled. We learn something of the cause of this punishment in the account of his admission. The records of the College have the following: "Tunc actum est, de electione Socii in locum vacantem, et eligitur Dr. Chamberlaine per majorem partem suffragiorum; sed decernitur ut voce Præsidentis admoneatur graviter de commutandâ ratione vestibus, quo nimis levi et aulicæ juventati similiori utebatur: nec prius admittatur, quam se consuetudini Collegii et Collegarum decenti et modesto se assuefacirit." Thirty years afterwards, he was expelled from the fellowship "decreto Collegii, in Collegii societate locum amisit." Dr. Peter Chamberlen or Chamberlaine as the name was variously spelt, had the interests of his branch of the profession sincerely at heart. He at one time endeavoured to obtain from the crown authority to organize the midwives into a company, with himself as president and examiner. In this he was opposed by the College of Physicians. Had he succeeded in this endeavour, the destinies of midwifery would probably have been very different from that which has actually obtained. Dr. Peter Chamberlen had many children, and of these we know that three of them, Drs. Hugh, Peter, and John practised midwifery. Dr. Hugh Chamberlen became distinguished as the translator of Mauriceau. Dr. Hugh Chamberlen had a son, also Dr. Hugh, who became a fellow of the College of Physicians, and was the most distinguished accoucheur of his day. It was Dr. Hugh, secundus, whose monument in Westminster Abbey has often been quoted. As regards the discovery of the forceps, all modern research concurs in fixing the invention on Dr. Peter Chamberlen. In his

"Voice in Rhama," published in 1647, he distinctly refers to his method of saving infantile life. He speaks of having been taught midwifery by his father, but there is nothing to show positively that he derived the invention from his father. Dr. Hugh Chamberlen, in his preface to the translation of Mauriceau, speaks of a discovery known only to his father, brothers, and himself, but does not give the merit of it to either individually. The weight of evidence is therefore strongly in favour of Dr. Peter Chamberlen, and in the absence of any further facts, he must be held to be immortalised by the discovery of an instrument which has saved more lives than any other improvement in medicine, vaccination only excepted. Dr. Lee describes the monument of this distinguished man at Wookam Mortimer as having fallen into decay, and I can imagine no more graceful act than that the Obstetrical Society should pay his memory the tribute of putting it into decent order.

I cannot leave the presidential chair without sincerely thanking the Fellows for the kind support they have accorded me during my tenure of office.

At the conclusion of the address, Dr. Barnes moved, and Dr. Harley seconded a vote of thanks to Dr. Tyler Smith for his valuable address, which was carried by acclamation.

February 4th, 1863.

Dr. Oldham, President, in the Chair.

Present—43 Fellows and 12 visitors.

The following gentlemen were elected Fellows: W. Bannister, Esq., M.R.C.S., L.A.C., Havant, Hants; Albert Philip Owen, Esq., M.R.C.S.; and G. Simpson, Esq., L.R.C.P., Edin., Bedford Place, Old Kent Road.

After a short address from the President upon his assumption of office,

Dr. Tyler Smith read a communication from W. W. Wiseman, Esq., and exhibited part of the Funis of a Still-born child in which a Double Knot was found. The knot was apparently the cause of death. It was the second child in a twin case, the first being born alive.

ON VESICO-VAGINAL FISTULA, THE MODE OF OPERATING, AND THE RESULTS OBTAINED IN FIFTY-FIVE CASES, AT THE LONDON SURGICAL HOME.

By I. Baker Brown, F.R.C.S. Exam.,
SENIOR SURGEON TO THE LONDON SURGICAL HOME.

The reasons which have influenced me in bringing the subject of this paper before the Obstetrical Society are threefold.

1st. That vesico-vaginal fistula can be very readily cured by operation.

2nd. That the lesion is produced very generally by protracted labours.

3rd. That the obvious inference is that we should never allow a labour to become protracted.

With regard to the first of the above. The operation in my hands, as shall shortly be shown, has been remarkably successful, but before entering into the details of the cases, it will be as well to give a brief description of the mode of operation which I am now in the habit of practising. There are many ways of operating for vesico-vaginal fistula, which have been modified or improved by various surgeons, but it is foreign to the purpose of this paper that they should be entered into. The plan I at present pursue, is about as easy and perfect as can be desired. The following is the mode of performing it.

The patient being placed under the influence of chloroform in the lithotomy position, or without chloroform on her hands and knees, the bent speculum is introduced, and, if in the former position, the urethra held up by a pair of vulsellum forceps. The first step is to pare the edges of the fistula; this is done by knives made for the purpose, one for the right and the other for the left hand; the fistula being held meanwhile either by a pair of forceps, or transfixed by a curved needle. The latter is perhaps preferable, as, besides everting both edges of the fistula, it has the advantage of having a needle inserted ready to be armed in the second stage. This consists in passing needles, made on the same principle as Startin's; but instead of being of flexible material they are made of rigid steel, and with various curves, fourteen in all. The needle first being armed with a wire is passed within a quarter of an inch external to the denuded surface, and thrust through the coats of the vagina and the muscular tunic of the bladder, avoiding its mucous lining, and out again on the opposite side at the same distance from the fistula. The wire is then pushed forward and seized by a pair of forceps and the needle withdrawn. This is extremely simple. I have used shots and buttons, and have invented clamps, &c. (all of which are described in my work

on the 'Surgical Diseases of Women'), but I have come to the conclusion that nothing is so easy or effectual as simply to twist the wire round and round with the fingers, or, if too far to be reached thus, then by Weiss' self-holding forceps. The ends of the wire are cut off, and the operation is completed. No dressing is required. The patient is placed in bed on her side, with her knees drawn up. A male elastic catheter without the stilette and with the bag attached, is introduced, and the patient left quiet for ten or fourteen days; when, to take out the wires it is only necessary to cut them on one side of the twist, and draw them out with forceps in the ordinary manner.

This operation, as just described, is shown by drawings, which will be found in my above-named work, to be almost as simple as it is possible to make it. It is also remarkably expeditious, for the time occupied in the worst cases has not exceeded three quarters of an hour, and frequently but ten minutes in the simple uncomplicated cases, that is to say, if the operator be assisted by gentlemen accustomed to this branch of practice.

The total number of cases of vesico-vaginal fistula admitted into the London Surgical Home, since its foundation four and a half years ago is 58. Of that number 55 were submitted to operation, with the results as shown in the accompanying table. The remaining 3 were not operated upon in consequence of the bad condition of bodily health, the result of syphilis.

Of the 55 cases treated, 53 were operated upon by myself, 1 by Mr. Nunn, and 1 by Mr. Harper.

Of the total number of operations, 43 were followed by perfect cure, 1 was much relieved, 2 died, 5 were not cured, and 4 are still under treatment, with every prospect of cure.

Of the 43 cures, in 24 this result followed the first operation, including the cases of Mr. Nunn and Mr. Harper; in 8 the cure occurred after the second operation; in 5 after three operations; and in 6 after more than three operations.

Of the other cases which were not cures, the details are

given in the tables, but it may be here mentioned, that of the 2 fatal cases, 1 died eighteen days after the operation, apparently from exhaustion, the age of the patient being fifty-six; and the other died seven days after, from pyæmia.

As an illustration of the success which attends the treatment of these cases by operation; I may mention, that besides those just given as occurring in the London Surgical Home, I had during my connection with St. Mary's Hospital 11 others in which this desirable result was brought about, namely, 7 after the first operation, 2 after the second, and 2 after more than two operations. I have also 6 cases in private practice, in which 5 were cured by one operation, and 1 by two operations. Taken altogether, this gives a total of 60 cases, in which 36 resulted in cure from one operation, 11 from two operations, 5 from three, and 8 over that number.

In the results of the operations it will be observed in looking through the tables, that age has had little or no influence upon them, for it varied from nineteen to sixty-six, and the operation proved as successful in the oldest as in the youngest.

The duration of the lesion would also appear to be no bar to successful operation; for, although it varied from two months to twenty years, the results were not the less satisfactory in many of the long-standing cases than in the more recent. Several patients had more than one fistula, which were cured by a single operation.

2ndly. With regard to the causes of vesico-vaginal fistula. Of the 58 cases admitted into the London Surgical Home, 47 were over twenty-four hours in labour, and 39 were as much as thirty-six hours, or more; 7 were two days; 16 were three days; 3 were four days; 2 were five days; 2 six days; and 1 seven days.

In the whole number of cases, instruments were used in twenty-nine, exactly one half, and in four only of these was the labour less than twenty-four hours, and with seven exceptions the patient had been thirty-six hours or more, in labour, before instruments were used.

Of the 58 cases, in 24 only the injury happened at the first labour; in 7 at the second; in 5 at the third; in 4 at the fourth; in 6 at the fifth; in 2 at the sixth; in 5 at the eighth; in 1 at the ninth; 1 at the thirteenth; 1 at the fifteenth and 2 not mentioned. In many of these cases, notwithstanding the existence of the fistula, the patient bore several children, apparently without inconvenience, before coming under treatment, and in a few of them, subsequent to cure by operation, other children have been born without recurrence of mischief.

In a large proportion of the cases there is a history of the birth of a very large child; in some it weighed fifteen pounds, and in one, that of the woman in whom the lesion happened at the fifteenth labour, the child weighed seventeen pounds.

From the foregoing statistics it is evident that the cause of the lesion is protracted labour, and not from the use of instruments or deformity of the pelvis.

3rdly. As a necessary deduction from what has been stated, it follows that vesico-vaginal fistula would scarcely or never occur, if a labour were not allowed to become protracted, and this is a point for the careful consideration of practitioners in midwifery.

Table of Fifty-five Cases of Vesico-vaginal Fistula operated upon at the London Surgical Home, from May, 1858, to December, 1862.

No. of case.	Age of patient.	In which labour injury occurred.	Length of labour.	Mode of delivery.	Duration of disease.	Nature of lesion.	Date of operation.	Number of operations.	RESULT.
1	25	1st	4 days	Natural	16 months	An oblique fistula admitting two fingers, involving anterior lip of os uteri	June, 1858	1	Cured.
2	35	2nd	2 days	Instruments	14 months	A fistula admitting one finger close to and involving os uteri	June, 1858	1	Cured.
3	29	1st	3 days	Instruments	7 years	Two openings, both small, close up to os uteri	July to Nov., 1858	6	Cured.
4	26	3rd	2 days	Turning	5 years	A fistula admitting a bougie near os uteri, and running into cervix	July, 1858	1	Cured. Has always menstruated since per urethram.
5	51	1st	6 days	Instruments	8 years	A fistula as large as a florin, near os uteri	Oct. and Nov., 1858	2	Not cured, but large portion healed; discharged unruly.
6	26	1st	36 hours	Instruments	4½ years	A fistula as large as half-a-crown, near os uteri. Vagina much cicatrized	Nov., 1858 to Jan. 1859	3	Cured.
7	36	8th	14 hours	Instruments	2½ years	A fistula as large as a. fourpenny piece, at junction of bladder with urethra	Nov., 1858	2	Cured.
8	45	8th	27 hours	Instruments	6½ years	Three small fistulæ near os uteri	Nov., 1858 to March, 1859	4	Cured.

9	19	2nd	36 hours	Forceps	5 months	A fistula as large as a florin, near os uteri	Jan., 1859	2	Cured.
10	28	1st	3 days	Natural	—	A large fistula	Dec., 1858	1	Not cured. Health undermined by syphilis.
11	32	—	2 days	Natural	6 months	Fistula not large	March to May, 1859	4	Cured. In January, 1861, was safely delivered by forceps at full period.
12	44	5th	Long	Natural	1½ year	A fistula two and a half inches long, implicating anterior lip of os uteri	Feb. and May, 1859	2	Cured.
13	44	—	2 days	Instruments	13 years	A fistula as large as half-a-crown	March and April, 1859	3	Cured.
14	24	1st	Long	Instruments	3 years	Fistula small	March, 1859	1	Cured.
15	56	8th	5 days	Natural	20 years	A large fistula. Vagina much cicatrized	May, 1859	1	Died 18 days after operation, apparently from exhaustion.
16	27	1st	8 hours	Instruments	2 years	A fistula large enough to admit a finger. Vagina much cicatrized	June, 1859	2	Not cured. Fistula lessened, but would not consent to further treatment.
17	29	4th	12 hours	Instruments	3 years	A fistula, admitting fore-finger near os uteri	Nov., 1859	1	Cured.
18	30	1st	—	Natural	10 months	Two fistulæ, one admitting a finger, the other a No. 10 bougie	Dec., 1859	2	Cured.
19	28	1st	30 hours	Craniotomy	2 months	A large fistula, extending from urethra to os uteri	March to Oct., 1860	4	Cured.
20	40	1st	Short, but pain stopped	Forceps	11 years	A fistula, admitting a thumb midway between os uteri and urethra	April and May, 1860	2	Cured.
21	34	5th	Protracted	Natural	3 months	A small fistula just behind urethra	April, 1860	1	Died from pyæmia a week after operation.
22	21	1st	3 days	Instruments	3 years	A fistula as large as a florin, involving half urethra	June and July, 1860.	2	Cured.

No. of case.	Age of patient.	In which labour injury occurred.	Length of labour.	Mode of delivery.	Duration of disease.	Nature of lesion.	Date of operation.	Number of operations.	RESULT.
23	38	9th	7 days	Instruments	3 months	A fistula as large as a sixpence at junction of urethra with bladder	May, 1860	1	Cured.
24	32	1st	24 hours	Natural	3 months	A fistula an inch long at junction of urethra with bladder	August, 1862	2	Cured.
25	41	13th	52 hours	Craniotomy	3 months	A transverse fistula two inches long. Vagina much cicatrized. Perinæum completely ruptured	August and Sept., 1860	3	Cured.
26	21	1st	35 hours	Craniotomy	3 months	A fistula at junction of urethra with bladder. Vagina cicatrized. Perinæum and two inches of recto-vaginal septum sloughed away	Oct., 1860	1	Cured.
									In both these cases the vesico-vaginal fistula had healed, the operation for ruptured perinæum was successfully performed.
27	27	3rd	3 days	Instruments	9 months	A large fistula high up in vagina	Nov., 1860 to June, 1861	10	Under treatment.
28	34	1st	2 days	Instruments	4 years	Two fistulæ, one admitting a thumb, the other smaller	Dec., 1860	1	Cured. Both fistulæ healed by one operation.
29	30	6th	9 hours	Instruments	2 months	Two fistulæ, one large and transverse, the other small and close to os uteri	Jan. to March, 1861	4	Cured. Three operations were required for the large, and one for the small fistulæ.
30	41	6th	2 days	Craniotomy	14 months	A large fistula extending from os uteri (which was torn) to within an inch of urethra	Feb., 1861	1	Cured.
31	34	1st	5 days	Natural	11 years	A small fistula near os uteri	March, 1861	1	Cured.

32	40	8th	28 hours	Natural	5½ years	A large vesico-vaginal fistula three to four inches long, and a large recto-vaginal fistula	March to June, 1861	4	Not Cured. General health bad.
33	26	1st	10 hours	Instruments	14 months	Fistula small. The vagina was only an inch long, the effect of cicatrization	April, 1861	1	Cured.
34	42	1st	36 hours	Instruments	16 years	The vagina nearly occluded, a fistula admitting finger into bladder—urethra gone, and there was also a recto-vaginal fistula	April to June, 1861.	4	Cured. In this case the vulva was closed, and she passed her urine per rectum.
35	26	1st	77 hours	Natural	3 months	A fistula the size of a bean near os uteri.	April and May, 1861	3	Cured.
36	26	2nd	12 hours	Natural	2 years	A triangular fistula near os-uteri	May, 1861	1	Cured. In August, 1862, was delivered at full period, without any injury to parts.
37	30	2nd	3 days	Craniotomy	6 months	A very bad case, most of the base of bladder sloughed away	June, 1861, to July, 1862	11	Under treatment.
38	42	2nd	3 days	Forceps	5 years	A large irregular transverse fistula	June, 1861	1	Cured.
39	37	3rd	3 days	Forceps	3 years	A fistula the size of a pea near os uteri	July, 1861	1	Cured.
40	66	5th	24 hours	Natural	18 years	A very large fistula, one inch above urethra	Sept., 1861	1	Cured.
41	39	5th	44 hours	Instruments	2 months	A fistula about the size of a sixpence	Dec., 1861	1	Relieved. Loses hardly any water.
42	28	2nd	48 hours	Instruments	1 year	A fistula about half an inch long. Os uteri shut off by cicatrizations	Dec., 1861	1	Cured. Menstruates per urethram.
43	47	8th	40 hours	Instruments	Some years	A transverse fistula three inches long, and gaping	Nov., 1861	1	Not Cured. General health bad.
44	35	1st	28 hours	Breech presentation	1 year	A gaping fistula at junction of urethra with bladder. Urethra impervious	Nov., 1861 to June, 1862	7	Under treatment.

No. of case.	Age of patient.	In which labour injury occurred.	Length of labour.	Mode of delivery.	Duration of disease.	Nature of lesion.	Date of operation.	Number of operations.	RESULT.
45	30	5th	4 days	Natural	9 months	A fistula about the size of a shilling	Dec., 1861	1	Cured.
46	42	4th	24 hours	Instruments	2 months	A transverse fistula one inch long, with inverted edges	Jan., 1862	2	Cured.
47	32	1st	3 days	Natural	7 years	A fistula as large as a shilling, midway in vagina	Jan. and Feb., 1862	3	Cured.
48	39	4th	36 hours	Natural	2 months	A long fistula, involving anterior lip of os uteri	Feb., 1862	1	Cured.
49	34	1st	72 hours	Forceps	2 years	A large rent across the floor of bladder	Feb. to May, 1862	3	Under treatment. Almost cured.
50	38	4th	78 hours	Forceps	10 months	A very large transverse fistula	May, 1862	1	Cured. In this case 17 sutures were used.
51	43	1 5th	3 days	Craniotomy	1 year	A transverse fistula half an inch long	July, 1862	1	Cured.
52	33	3rd	36 hours	Forceps	10 months	A small fistula midway in vagina	July, 1862	1	Cured.
53	33	2nd	48 hours	Natural	12 years	The anterior lip of os uteri was sloughed away, and there was a fistulous communication between the bladder and cervix uteri	July, 1862	1	Cured.
54	44	1st	72 hours	Craniotomy	5 years	A fistula as large as a sixpence	Nov., 1862	1	Cured.
55	33	5th	28 hours	Forceps	10 months	A gaping fistula one and a half inch long, midway in vagina, which was much cicatrized	Dec., 1862	1	Cured.

In addition to these cases, Mr. Baker Brown had under his care in St. Mary's Hospital 11 other cases,—7 of which were cured by the first operation,—2 by 2 operations. and 2 by more. He has also had in his private practice 6 cases,—5 of which were cured by 1 operation, and 1 by 2;—making a total, in his own experience, of 58 cured,—34 by 1 operation,—11 by 2,—5 by 3,—and 8 by more.

Mr. Bryant remarked that although he had not so extensive an experience in this special class of cases as the author of this paper, to bring before the Society, the opportunities which he had enjoyed at Guy's Hospital had been amply sufficient to enable him to form a just estimate of the measures which are required for a successful operation, and of the difficulties which interfere with such a result. He quite agreed with the author as to the essential steps of the operation, which might be divided into two —First, to make a clean and even dissection of the margin of the fistula; and, secondly, to bring the edges together, and to keep them there. Both points were of equal importance, for if either was imperfectly executed, failure would necessarily follow.

He differed with the author respecting the use of the forceps and scalpel in carrying out the first steps of the operation, for experience had proved to him the difficulty which was always felt in making a clean section of the fistula's margin by such means; it being almost impossible, if the opening were a large one, to complete the process without making some little irregularity in the margin of the wounds; and if this existed, primary union of the fistula's margin was rendered impossible, and a second or third operation would be demanded. He had therefore been led to the formation of his pronged guide, a description of which he had laid before a sister society last year, and an account of which would be found in the 'Transactions of the London Medical Society.' By this instrument, a clean section of the margin of the fistula, however large it may be, is absolutely guaranteed; and as a proof of its value every operation which he had undertaken since its introduction, had been followed by immediate success.

Respecting the second step of the operation, he generally preferred metallic sutures, from the facility with which they were applied, although he did not believe that they caused more or less irritation than ordinary silk.

Mr. Brown had forgotten to mention the period that he generally left the sutures in. Mr. Bryant believed that it was unnecessary as also injurious to leave them after union had taken place, and alluded to cases in which he felt confident failure had followed from such a practice.

Respecting the use of opium in the after treatment, Mr. Brown had been silent. For himself he was disposed to think that surgeons had of late years been giving too much; and that in these plastic operations opium had a tendency to retard the healing process. He would recommend that enough be given to keep the bowels at rest, but nothing more. He would inquire of Mr. Brown, also, how long did he leave the catheter in the bladder after the operation? or did he introduce it only periodically? His experience had told him that a periodical introduction only was necessary. The catheter when fixed in the bladder

acted as a constant irritant and did harm. He had gained this hint from the treatment of a case which had been under the President's and his own care, in which the bladder rejected the presence of the instrument, and in which a good recovery followed. He had therefore acted upon this hint in subsequent cases.

He thought the Society was indebted to Mr. Brown for his interesting communication.

Mr. Nunn stated that he had had the opportunity of examining the state of parts after death in one of the cases recorded as fatal, in Mr. Brown's list. He had found the bladder extremely atrophied, so thin as to resemble parchment; in this case the opening of the fistula was very large, and had, he believed, existed for a long period.

Mr. Nunn, had by the kind permission of Mr. Brown, exhibited the parts in question at the Pathological Society, and he only ventured now to refer to the case, since it had some bearing upon a very important practical point in the after treatment of cases of operation for vesico-vaginal fistula. He alluded especially to the use of the catheter. There was a growing inclination to dispense as much as possible with the employment of the catheter. Mr. Nunn stated that he had heard of a case in which the vesico-vaginal fistula having been perfectly cured by one operation, the patient had died from perforation of the bladder by ulceration induced by the pressure of the point of the catheter, which had been retained (as was but a short time since the most approved treatment) in the bladder.

It would prove a great boon if fistulas could be successfully treated without leaving the catheter in the bladder; and Mr. Nunn suggested that it would be a point of very serious consideration in old standing cases—those, in fact, in which it might be presumed the bladder had become atrophied from disuse, whether the catheter might not be really very dangerous if retained in the bladder, as the attenuated walls would easily undergo the ulcerative process. At the same time, however, it must be remembered, that an atrophied bladder too would have but the very feeblest expulsive power, and would require to be closely watched.

Dr. Braxton Hicks thought that, from what he had seen, more injury was done by long-continued pressure than by a more forcible one of short duration. It was impossible to lay down any rule as to the time the head could remain with impunity, for in a case of vesico-vaginal fistula he had seen the labour was of average duration, and never severe. Although he considered, in good hands, the forceps could be safely used, yet before we could assent to the inference drawn by Mr. Baker Brown we must be certain that no other injuries would be produced by the forceps worse than vesico-vaginal fistulæ, injuries which might possibly

prove early fatal, and thus not give time for the development of fistulæ.

Dr. Oldham saw nothing in the communication made to the Society, valuable as it was, to induce him to vary a hair's breadth from the precautionary precepts for the employment of instruments in protracted labour which were recognised and advocated by the best British obstetric authors. He felt persuaded, from his experience of cases which had come before him, that the more frequent employment of instruments would result in the laceration of the structures at the floor of the pelvis, particularly the laceration through the sphincter of the rectum, an accident only second to that of vesico-vaginal fistula in its distressing results, and which involved a most painful and formidable operation.

Dr. Tyler Smith observed that in laying down a rule of practice it was essentially necessary to employ precise language. If Mr. Brown had employed the term labour with impaction, instead of protracted labour, he should have agreed with him. We might have protracted labour from many causes, some of them not necessarily injurious to the mother, but we could not have continued impaction of the head without the risk of injury to the soft parts of the mother, and impaction should therefore never be allowed to go on unrelieved. In performing the valuable operations which had been devised for these distressing conditions, he (Dr. Tyler Smith) thought it should be laid down as a principle, that in repairing one organ the integrity of the neighbouring organs should be respected. This applied, in the operations for vesico-vaginal fistula, to the rectum, ureters, and the os uteri. In some of the cases related the os uteri had been closed, and the menstrual fluid left to escape *viâ* the bladder, or the urine to pass per rectum. These evils were scarcely less than those they were intended to remedy. Fatal results had followed from the closure of the os uteri. Very recently he had seen a remarkable case where the os uteri had been closed in a plastic operation, which seemed perfectly justifiable, for the relief of utero-vesical fistula. A perfect cure was the result as regards the urine for the time. Menstruation occurred through the bladder, but the patient in a few months became pregnant. The urethra was of moderate size, and there seemed no other explanation than that the spermatozoa must have passed from the vagina through the urethra and bladder to the uterus. The result of this and other cases satisfied him that it was not a safe practice to close the os uteri, or to invade other organs, but that the plastic operations should be limited, as far as possible, to the closure of the original fistulæ.

Dr. Rogers observed that there were two subjects connected with the paper just read, which required separate consideration. The one that vesico-vaginal and recto-vaginal fistulæ were caused

by lingering or protracted labours, and the Society was asked by Mr. Baker Brown to give his sanction to its present views of the advisableness of more frequent use of the forceps, so as to bring labour to a more speedy termination. The second part or subject, the best treatment of these hitherto intractable lesions.

With reference to the first—Dr. Rogers entirely concurred in the judicious and admirable remarks of the President and Dr. Tyler Smith, and that these lesions were the consequence not of simple lingering labour, but of impacted presentation, causing undue and long-continued compression of the urethra; in such cases there could be but one opinion as to the necessity of manual or instrumental interference. Dr. Rogers could not advise the Society to sanction Mr. Brown's present views of more frequent use of forceps, which were in direct contrast to his former and more judicious opinions.

The second subject—The best method of operation and subsequent treatment were to be considered. Undoubtedly those of Mr. Baker Brown were all that could be desired, as Mr. Brown's success testified. Too great praise could not be given to Mr. Brown and all other gentlemen, who, by their untiring labours, had assisted to make these operations now almost always successful. Dr. Rogers well remembered how such cases, not twenty years ago, were turned out of hospitals as incurable, to drag on a weary life of misery. He had seen two cases of vesico-vaginal fistulæ cured by the electric cautery, but he preferred the use of the knife to that method or the scissors. He thought that Mr. Spencer Wells now only left in the catheter for a short time after the operation, and probably it would be found to be better practice to leave it out altogether, and draw off the water at frequent intervals.

Mr. Baker Brown, in reply, said that he supposed the prong mentioned by Mr. Bryant to be similar to that invented by Mr. Hilliard, of Glasgow. He had tried it, and found his old plan easier and quicker. In America, Drs. Sims and Bozeman did nearly all the denuding of the edges with scissors. This made the operation very long. But if the knife was first used to mark around the fistula how much was to be taken off, and then, by means of a fine pair of forceps, the edges were made tense, Mr. Brown said that the whole fistula might be denuded, taking out a complete ring—a matter of great importance. In regard to the sutures, Mr. Brown stated that he greatly preferred wire, although Dr. Hayward, of Boston, U.S., used silk in preference. Mr. Brown had by this gentleman's advice used silk in one case with a good result. But they were more liable to slough, and the wires, from their stiffness, had the advantage of keeping the edges more in apposition, and so ensuring a greater depth of union. But the sutures to be used should, Mr. Brown thought, be silver, not iron, as recommended by Dr. Simpson, of Edin-

burgh. Mr. Brown expressed a very strong opinion in favour of keeping the sutures in long enough; never less than nine days. He believed no harm ever resulted from retaining them in longer; but in one case he had had, he removed them on the sixth day, at the patient's request. The fistula appeared quite healed. She got up next day, contrary to advice, and the whole burst open again. She was re-operated on; the sutures were left in a sufficient time, and a cure resulted. Mr. Brown had made experiments, and kept silver sutures in for six and nine months, and no trace of ulceration appeared. Mr. Brown considered that opium should be given only in sufficient quantities to keep the bowels quiet. One grain immediately after the operation, and repeated night and morning, according to the circumstance of the case. Many patients cannot bear the catheter, especially the leaden one, but Mr. Brown had seldom found the male elastic catheter to cause irritation. Perhaps in time we might gain sufficient confidence in the operation to allow the patient to pass her urine as required, but at present it was better to retain a catheter, or when that was not tolerated, to pass one when needful. He had purposely used the term protracted without reference to the cause of protraction, for it was very rarely that a medical statement could be obtained. It was necessary, therefore, to take only the statement of the patient as to the duration of labour. When the head was impacted, Mr. Brown would deliver as soon as possible by forceps. He quite agreed with Dr. Tyler Smith as to the necessity of maintaining the integrity of the other parts in these operations. Of the two cases on which he (Mr. Brown) had operated, and where the patients subsequently menstruated per urethram, in one, the patient having been under many operations in other hands for some years, the os had already been interfered with either by sloughing or by the operation, and only one small opening, as described, remained to be closed. There was, therefore, nothing left to do but to close the opening, regardless of the menstrual flow. The patient had done well. No inconvenience had arisen, and she was grateful for the benefit received. In the other, that lately brought before the Society by Mr. Chapman, the os uteri was already closed by cicatrization, after extensive sloughing, and therefore Mr. Brown had nothing to do with its occlusion. He considered that the two terms, vesico-vaginal and vesico-uterine fistula, were not used with sufficient caution. Although the os uteri might often be involved in vesico-vaginal fistula, the true vesico-uterine fistula was when the hole was high up in the cervix, urine dribbling through the os uteri, although no aperture from the bladder was visible. This was the kind of which Jobert had related seven cases, Dr. Fleetwood Churchill one, and which had lately been so well described by Mr. James Lane, who had had one case. In all these the treatment had

been close to the os, so that the patient menstruated per urethram. He (Mr. Brown) had never had such a case, but he thought that the treatment adopted was decidedly the lesser evil, and if the patient, on having the case laid before her, was of the same opinion, he considered it perfectly justifiable. The case Mr. Nunn had mentioned showed that by leaving a vesico-vaginal fistula alone, other evil results, besides the inconvenience, would arise.

March 4th, 1863.

Dr. OLDHAM, President, in the Chair.

Present—41 Fellows and 7 visitors.

The following gentlemen were elected as Honorary Fellows of the Society:—Prof. Martin, of Berlin; Dr. Beatty, of Dublin; Dr. Pagan, of Glasgow; Prof. Braun, of Vienna; Prof. Depaul, of Paris; and Prof. Faye, of Christiania.

The following gentlemen were elected as ordinary Fellows of the Society:—J. H. Galton, M.B., Brixton; H. V. Garman, Esq., Bow Road; W. Hanna, Esq., Belfast; R. W. Jenkins, Esq., Philpot Lane; J. W. J. Oswald, Esq., Kensington; Josiah T. Powell, M.D., City Road; John Rowland, M.D., Strata Florida, Lampeter, Cardiganshire; Joseph Rushforth, Oxford Terrace; J. H. Tutin, Esq., Ripon.

READY-MADE PLASTERS.

Dr. Tilt drew attention to the fact that when a hundred or a hundred and fifty grains of common starch are boiled in an ounce of glycerine, the result is a very stiff glutinous compound, which has no smell, and does not become rancid; and although sticking firmly to the skin, it can be removed and reapplied. Instead of ordering belladonna plaster, Dr. Tilt prescribes three grains of sulphate of atropia to be rubbed

down with a few drops of glycerine, then incorporated with an ounce of hard glycerine ointment, and thickly spread by the patient on gutta-percha cloth or impermeable wash-cloth. This can be removed for the morning ablutions, and reapplied after spreading a little more ointment on the same plaster. Morphia and other alkaloids are prescribed in the same way. The samples exhibited by Dr. Tilt were made by Mr. Bullock, of Hanover Street.

CASE OF POLYPUS UTERI COMPLICATING LABOUR, REMOVED BY LIGATURE TWO DAYS AFTER DELIVERY.

By Henry L. Freeman, M.R.C.S.

(Communicated by Alfred Meadows, M.R.C.P.)

Mrs. A—, a farmer's wife, æt. 37, was taken in labour with her fifth child, on December 4th, 1862, when it was discovered that the vagina was occupied with a large soft mass, bigger than the head of the child, which could be felt presenting above the tumour. The patient could give no account of it, nor had she experienced any particular inconvenience from it during her pregnancy. As labour progressed, the mass alluded to was gradually forced down beyond the external parts, until it was entirely protruded, the head of the child following closely upon it; during all this time there was no hæmorrhage, nor did the patient make any special complaint of pain. The labour pursued its own course, neither retarded nor hastened by the presence of the mass in question, and terminated satisfactorily both to mother and child. The expulsion of the placenta speedily followed, still without any hæmorrhage.

Immediately after birth, as there seemed no special need for interference, the tumour was gently pressed back again

into the vagina, which it completely filled, and the patient was left quite comfortable. There was no pain, and no unusual sensitiveness in the tumour, indeed it seemed quite insensible. On still further examining, though the finger could be passed quite round the mass, no distinct pedicle could be made out. There was no unusual amount of lochial discharge, no excessive pain, and nothing requiring any medical treatment.

The next day, December 5th, pain increased and was of a decidedly expulsive character, so that a part of the tumour was again protruded beyond the external parts, and there was great pain felt in the back and loins, for this an opiate was ordered, which had the desired effect. No hæmorrhage occurred.

On December 6th, the bearing-down pains increased, and a large offensive mass, of a soft fleshy character, was thrust through the external parts; there was no tenderness in it, no bleeding, but a thick pedicle could be felt high up in the vagina. It was now determined to remove it, and accordingly a piece of strong whipcord was tied tightly round the part external to the vagina; this done, the mass was removed by the knife. The end with the whipcord attached to it was then gently returned to the upper part of the vagina, and the patient was greatly relieved by the operation. The stalk was found to be attached just inside the lip of the os uteri, and seemed fully three inches in diameter. The discharge afterwards was very fœtid, and continued so till the 12th, when the ligature came away; warm water was freely used with a syringe. From this time the patient continued to improve, she nursed her baby, and recovered without having had a bad symptom.

The tumour weighed three pounds eleven and a half ounces, and was exceedingly soft and flabby, presenting somewhat the appearance of placenta, but contained a number of cellular spaces varying in size from that of a pea to as large as a good-sized nut, and was made up of fibres and blood-vessels.

On examining the patient on the 20th of February, 1863,

eleven weeks after delivery, the os uteri, though not quite contracted to its normal dimensions, was but very little open, and not a vestige of the pedicle remained. The patient had regained her usual health and strength, and was able to suckle her child.

There is this further interesting point to be noted, that on the fourth day after her preceding labour, which took place in 1860, her medical attendant, Dr. Lay, of Peasenhall, Suffolk, found a large mass projecting through the vulva, which he took to be the inverted uterus, it was exceedingly sensitive, but Dr. Lay succeeded in reducing it, and the patient never experienced any inconvenience from it afterwards, either as regards pain, hæmorrhage, or other discharge. Nor during the present pregnancy did she suffer in any unusual way.

ON DISPLACEMENT OF THE BLADDER AS A CAUSE OF TEDIOUS LABOUR.

By W. H. Broadbent, M.D. (Lond.), M.R.C.P. (Lond.)

I venture to bring before the Society one or two points in obstetric practice, relating chiefly to some causes of protracted first stage of labour, the results of observations made while I held the office of Resident Obstetric Officer, at St. Mary's Hospital, in 1858-9. They were intended for publication at that time, in two papers; one "On Displacement and other Abnormal Conditions of the Bladder as a Cause of Delay in the first Stage of Labour," the other "On the Influence of Position on the Progress of Parturition," but the latter subject has since been under discussion before this Society and elsewhere, and I shall consequently treat of it very briefly; the former, however, I shall go into more fully, as I do not find in the systematic works on

midwifery, which I have had the opportunity of consulting, or in the 'Obstetrical Transactions,' any complete account of the disturbing influence which derangement of the bladder seems to exert on the first stage of labour.

Undue distension of the bladder, prolapsus with accumulation of urine in it during labour, have long been known as sources of danger, and causes of pain and delay; and especially prolapsus with distension, as a mechanical impediment to the passage of the child's head, and as endangering the integrity of the organ, has received the consideration it demands, but I have been led to conclude that displacement and other conditions of the bladder, without involving the same serious consequences, frequently cause labour to be tedious and painful in the first stage, interfering with the dilatation of the os uteri by the substitution of false pains of a very severe character, which give much unnecessary suffering, and exhaust the strength of the patient before the expulsive stage comes on.

The conditions of the bladder which I have found thus to interfere with the first stage of labour are:

1. Complete prolapsus, with or without distension.
2. Partial prolapsus, *i. e.*, where the fundus remains between the uterus and symphysis pubis.
3. Distension while *in situ*.
4. Irritability?

They all appear to affect the progress of labour in the same way, and the attendant symptoms are similar in each, and very characteristic.

1. *Prolapsus.*—This displacement does not occur suddenly during labour, but in most cases is present before impregnation, as a result usually of repeated child-bearing. It may give rise to little or no inconvenience during pregnancy, and not uncommonly gestation goes to its full term, with no further annoyance than a frequent desire to pass water. Sometimes, however, the urine cannot be retained, and it dribbles away constantly, or the bladder is never thoroughly emptied. At any time during the later months of pregnancy the bladder may become distended, false pains of great

severity may be set up, and labour may even be induced prematurely.

More commonly, however, gestation goes on to the full term, with only the slighter inconveniences first mentioned, and only when labour commences does this condition of the bladder give rise to serious trouble. The preliminary uterine contractions, generally painless, and often unnoticed, affect the prolapsed bladder; there is usually frequent desire to pass water, and if the bladder cannot empty itself the urine accumulates and distension results. But even if the bladder remains empty, the contractions of the uterus are soon accompanied with pain in the bladder, from pressure or traction, which becomes more and more severe. This pain seems to excite the uterus to more frequent contractions, and looking only at the frequency and sharpness of the pains, the labour may appear to be progressing rapidly. The pains, however, have a peculiar and distinctive character. The intervals are shorter than in the early stage of natural labour, and when inquiry is made, the pain is referred not so much to the back, as to the "bottom of the stomach," by which phrase women often mean not the hypogastric region merely, but the vagina and vulva; in this case its real seat is the bladder. The appearance and behaviour of the patient is different; so long as she chooses to remain on her feet and walk about, instead of placing the hands on the loins she prefers to lean on the back of a chair, or to sit down bending forwards with the hands or elbows on her knees, and though these attitudes are common in natural labour, a constant resort to them early in the first stage, generally indicates other than the ordinary pain, and particularly when the pains come on more rapidly than usual. With this there is more frowning, more active contortion of the features, biting of the lip, and, what is very characteristic, violent straining or forcing; not three or four prolonged efforts, as in the expulsive stage of labour, but in a series of short spasmodic jerks, almost involuntary, attended with great pain and expressions of impatience and suffering. The patient will often say she never had such pains before.

Frequently the patient, misled by the severity of the pains, their "forcing" character, and by the sensation of fulness and distension in the lower part of the vagina, imagines that the labour is near its termination, and betakes herself to bed at an unusually early period.

If the hand is placed on the abdomen, it will be found that the increased firmness of the uterus indicating a commencing contraction is at once followed by spasm of the abdominal muscles, and an examination per vaginam shows the same thing; first, tension of the cervix uteri, or of membranes, if they can be felt, from the action of the uterus, and then the uterus itself is forced downwards into the pelvis by a series of spasmodic contractions of the abdominal muscles. When this takes place, the normal action of the uterus appears to be suspended, as if replaced by the abnormal actions induced, or it operates under great disadvantage. At any rate little dilatation of the os uteri is effected; the labour is greatly protracted, and the patient suffers much unnecessary pain.

There may or may not be symptoms directly calling attention to the bladder; frequent desire to pass water, or inability to do so, or both, and there may or may not be accumulation of urine in the bladder. Sometimes, also, prolapsus, with distension, may exist without giving rise to any special symptoms in the early stages of labour.

The prolapsed condition of the bladder is readily recognised on examination, especially when it contains urine in any considerable quantity. The cavity of the pelvis is found to be occupied by a bag of fluid easily distinguished from the fœtal membranes, by the fact that it springs from the pubis, and does not permit the finger to pass between it and the symphysis. As this sac, the bladder, fills up the hollow of the sacrum, the os uteri cannot be reached till the urine is evacuated, and if this is done by the catheter, the instrument can be felt from the vagina, and followed to every part of the bladder. When the bladder is perfectly empty, the displacement may be overlooked, but the finger, instead of circumscribing readily the lower segment of the

uterus, meets anteriorly with the bladder passing from the symphysis pubis to the uterus, and usually disposed in rugæ; the introduction of the catheter at once makes the case clear. The os uteri is almost invariably found high up and far back, so that the anterior part of the lower segment of the uterus, which may be felt in the vagina, and along which is spread the prolapsed bladder, presents an unusually extensive surface. I am disposed, indeed, to believe that the displacement of the bladder is for the most part secondary to the displacement of the uterus.

Partial prolapse I have considered worthy of mention distinct from the complete displacement, because it is more likely to be overlooked, and because the symptoms, though nearly the same, are usually even more severe. There is almost constantly a frequent desire to pass water, and the urine never accumulates. On examination, the lower part of the posterior wall of the bladder is felt in firm, small rugæ behind the pubis, generally tender when touched, and the seat of extreme pain when the uterus is forced down into the pelvis. The catheter may be felt to pass up between the cervix uteri and symphysis pubis, showing that the prolapse is not complete. The pains have the spasmodic straining character before described; the uterine contractions affect the displaced bladder, causing pain and irritation; as a consequence, violent reflex action of the abdominal and perineal muscles is set up; a kind of tenesmus, which supersedes the normal uterine action, and thus not only is the first stage of labour rendered long and exceedingly painful, but the patient is more exhausted than by a prolonged first stage without this complication.

I have enumerated as other conditions of the bladder affecting the first stage of labour in a similar manner, distension while *in situ*, and "irritability." Cases will be given which, I think, justify me in including them, and I pass them over without further remark than that the symptoms are of the same character, but usually not of the same degree of severity.

The treatment in these cases is simple, and often very

effectual. Whenever the symptoms I have mentioned arise, pain in the region of the bladder, with premature involuntary straining, attention should be directed to the bladder, and I think it best always to introduce the catheter. Should any accumulation of urine be detected in the vaginal examination it is absolutely necessary. The patient should also be placed on her back; this not only relieves the bladder from a certain degree of pressure by the falling back of the uterus, but in those cases (and I believe they form a large proportion), in which there is an unnatural position of the fundus of the uterus forwards, and of the cervix backwards, the supine position will aid in bringing the axis of the uterus into correspondence with the axis of the brim of the pelvis. In some cases, also, much good may be done by drawing the anterior lip of the os uteri downwards and forwards, during an interval, and fixing it during a pain in this position. A third means, to which I should unhesitatingly resort, is the administration of chloroform. The effect is to put a stop to the violent spasmodic action of the abdominal muscles, which is of a sensori-motor character, while the proper uterine contractions, being not interfered with, neither by the straining effort, nor by the anæsthetic, effect the dilatation of the os uteri. The head once engaged in the pelvis, the displacement of the bladder, though it may still cause great suffering, does not interfere with the progress of the labour, provided, of course, that accumulation of urine has been guarded against.

I may here introduce the few remarks I have to make on the influence of position in labour. The advantages of the supine position in cases of relaxation of the abdominal wall with falling forwards of the uterus, have long been recognised, but they are not confined to instances in which this condition exists. Delay in the going up of the anterior lip of the os uteri perhaps more commonly marks the fact that the descent of the head into the pelvis is slow, than itself operates as a cause of obstruction to this descent. It will always, however, be an advantage to have it out of the way, and this may often be effected by placing the patient on

her back. Any one may observe, as I have often done, the difference which this change of position from the side to the back, makes in the position of the anterior lip of the os uteri, and many members of the Society may have seen cases in which it has been attended with a marked change in the rate of progress of the child through the pelvis. One case also I have seen, in which, from the falling of the uterus towards the left side, the head of the child seemed to be directed against the right side of the pelvis, there being further a slight bending in of the ischium on this side; after long waiting, this condition suggested the placing of the patient on her right side, the supine position having been tried with no effect; the head at once cleared the obstacle, and the labour was speedily terminated, without any apparent increase of force in the pains.

In relating the cases upon which the preceding remarks have been based, I shall give them in the order of their occurrence rather than classify them according to the nature of the affection of the bladder; the earlier more fully than those I saw later, since in the former my attention was drawn to the subject, and my notes were more minute and full.

Case 1.—*Irritability of bladder; no displacement detected.* At about 2 o'clock on the morning of the 31st of December, 1858, I was called to Mrs. P—. I found the os uteri considerably dilated, soft and moist, there was very little liquor amnii, and the head presented. She complained of an incessant desire to pass urine, which could only be effected in the standing posture. She had already made a large quantity before my arrival, and she continued to pass a little every few minutes. The recumbent position was intolerable; the distressing sensation of the necessity for emptying the bladder seemed to replace the true uterine pains; involuntary straining efforts were induced, which exhausted the woman, and delayed the progress of the labour. As the urine seemed to escape without much difficulty, I attributed the symptoms to irritability of the

bladder without distension, and I delayed the introduction of the catheter for some time; at length, however, I resorted to this, but did not succeed in drawing off much urine (I believe the catheter was obstructed, as it had been out of my hands, and was detected to be so when employed two days later). The operation, however, was followed by the escape of a considerable quantity, and from this time the spurious pain and straining ceased, and the labour proceeded much more rapidly, being terminated at 6.10 a.m.

Case 2.—*Partial prolapse of bladder.* The second case is that of Mrs. F—, whom I first saw about noon, December 31st. According to her statements, the membranes had been ruptured a month previously, during unusual exertion, and she lost about a "pailful" of water; since then there had been a continual drain of fluid, and a week ago she had lost a large amount of blood. She was in labour with her seventh child, and had been suffering pains for about twenty-four hours in the back, lower part of the abdomen, and right side. On examination the os uteri was found high up in the pelvis, and somewhat directed backwards, but it was reached without very great difficulty; it was soft and dilatable; elliptical in form, and large enough to admit the points of three fingers. Under the arch of the pubis, extending backwards to the anterior surface of the uterus, was the bladder, nearly empty and thrown into rugæ; it was very tender on the finger being brought into contact with it. The pains were frequent, and caused much suffering, but during their action the head of the child was not pressed into the os uteri, so as to render it tense; instead of this, the uterus was forced down bodily, by the abdominal muscles acting spasmodically. When the hand was placed upon the abdomen, the uterus was felt to contract at times, but the spasmodic action of the abdominal muscles was much more frequent and energetic. The character of the pains was altogether different from that of normal pains of either the first or second stage of labour, as was also the cry. They differed as much also

from ordinary false pains set up by intestinal irritation. They seemed to be initiated by a uterine contraction, which was, however, immediately supplanted by a series of straining, bearing-down efforts.

At 3.30 p.m., little change had been effected in the state of the os uteri, but the parts were becoming dry. The pains remained the same, and the woman was greatly exhausted. The urine dribbled away involuntarily, and a little collecting in the bladder I withdrew it by means of the catheter. I now proceeded to administer chloroform, and kept her for some time partially under its influence, without producing complete insensibility. The pains ceased, and she slept for a short time, the passages became moist and cool from the repose, but the os uteri remaining of the same dimensions, I left the house. The pains began to return to some degree at about 10 p.m. At midnight I again gave chloroform, and ordered 30♏ of laudanum to be taken at once, and 20♏ in three hours, if necessary.

At 11.30 a.m., on January 1st, the os uteri was still in the same state; the pains were not now severe, but she had not slept during the night. In the evening, no change; she took two grains of opium, and one grain in two hours afterwards.

The pains returning, I was sent for, and I arrived at 5 a.m. The genuine pains of labour had now set in, and the os uteri had a diameter of two inches. The urine continued to escape involuntarily, and, as a matter of precaution, I introduced the catheter,—the bladder was all but empty. Gradually a bag of membranes became manifest before the head, dilatation of the os uteri went on slowly, to the full extent. The liquor amnii was discharged with violence, after which the pains became extremely powerful, and the labour was terminated at about 10 a.m. As the head was expelled, the bladder was carried down before it, and brought completely out of the pelvis, under the pubic arch; the pain was extreme, causing the woman to plunge about in an almost convulsive manner.

The placenta was adherent, and required the introduction of the hand for its removal.

Case 3.—*Distension of the bladder without displacement. Hysterical symptoms.* Mrs. W— had previously borne two children, the first living only six hours after a difficult labour, the second being born dead. I was called to her at 9 a.m., January 11th. The os uteri had a diameter of about two inches, it was thin but soft, moist, and dilatable; the head presented in the first position. During the examination, the woman protested that I was killing her; she threw back her head, turned up her eyes, feigned unconsciousness, and simulated stertorous breathing. She had the hysterical temperament and features; the voice had an affected whining tone, the face a petulant expression, and it was evident that I had to deal with hysteria. The labour proceeded but slowly, and I soon perceived that there were two sorts of pains—the genuine uterine contraction, which elicited a cry of real suffering, and another set, consisting of a series of rapid, short, straining or bearing-down efforts of the abdominal muscles, accompanied by grimaces, moanings, and grasping at any object within reach; these I set down as voluntary and simulated. The hysterical vagaries became worse. She appealed in turns to me, the nurse, and her husband; shouted "murder," tossed about most violently, sometimes appearing maniacal, tearing her hair, and clutching at everything around her. Being assured that the presentation was favorable, my attention was directed chiefly to the control of the hysterical symptoms, but about 12.30, placing my hand on the abdomen, I found below the uterus a second swelling, extending across the hypogastric region, and formed by the distended bladder. I at once introduced the catheter, and took away a large quantity of urine. This gave instant relief; within a few minutes she was asleep, and when aroused by the accession of a pain, there were none of the previous symptoms. The pains assumed a different character, the labour progressed

rapidly, and she endured the final throes with more than usual firmness.

Next morning no urine had been passed since the birth of the child. I desired her to make the effort, and a considerable quantity was discharged.

Case 4.—*Prolapsus of bladder, with accumulation of urine.* A fourth case, I was first called to on the evening of January 14th. Mrs. T— had been suffering all day from pains in the abdomen and genitals, coming on in paroxysms. They were of the straining character I have attempted to describe in connection with the previous cases. The bowels had been greatly disturbed by a dose of castor oil. On examination, I found the bladder prolapsed and greatly distended, so as to be pressing through the vulva. An attempt to empty it only succeeded very imperfectly, and I was still unable to pass the finger behind it, so as to ascertain the condition of the os uteri. I therefore emptied it by means of the catheter, and then found the os uteri tilted upwards and backwards, pointing to near the top of the sacrum; dilatation had not commenced. I gave her a carminative draught with Tinct. Opii, enjoined rest in bed, and the pains ceased till January 22nd, when I was again sent for. This time they were attributed to a domestic disturbance; the bladder was empty, and disposed in rugæ under the arch of the pubis, and along the anterior wall of the lower segment of the uterus; the os uteri was high up and undilated. An opiate again arrested the false pains.

I was called a third time to this case, at 3 a.m., January 29th; the pains had the same character, and were felt exclusively in the abdomen and genitals. The bladder was not in a state of distension, but it contained sufficient urine to prevent the os uteri being reached, it was therefore emptied by means of the catheter. The finger, on entering the vagina, came directly upon the anterior surface of the lower part of the uterus, and in a direction almost perpendicular to it; the bladder was the seat of great tenderness. The os uteri could be reached only with great difficulty, and

by pressing back the anterior edge of the perinæum to a considerable extent. It pointed to the upper part of the sacrum, and was very little if at all dilated. The uterus was evidently tilted forwards to a very unusual degree, and I proceeded to attempt to rectify this displacement by pinning tightly round the abdomen a strong towel, passing it under the lower part of the projecting uterus, so as to raise it as much as possible, and carrying it obliquely upwards round the back; in addition, I placed the woman in the supine position, with directions to support and raise the uterus during the pains. I administered a small dose of Tinct. Opii, and left her about 4.10 a.m. At 6, I was sent for, the pains having returned; they were now in the back, and had the characters of true uterine contractions. The means adopted had succeeded in restoring the uterus to its proper axis, the os was easily reached, and considerably dilated; the labour went on rapidly, and was completed at 7.30 a.m.

Case 5.—*Antero-posterior narrowing of brim of pelvis. Uterus thrown forwards. Bladder prolapsed.* Mrs. S—, 9.20 a.m., February 21st, 1859. Second child. When first seen had been in labour for some time (all night); extreme pain in hypogastrium, and great involuntary straining. The woman very short. On examination, uterus found not to enter pelvis in the least. Os reached with difficulty, high up and far back, not at all dilated. Anterior half of lower part of uterus very tense. Bladder prolapsed. I drew down the os uteri gently, and held it for several pains, it dilated rapidly to a diameter of about an inch and a half. At first the anterior lip was thrown into a fold between the finger and pubis, and if let go, the os again slipped up out of reach; before I left this was no longer the case. This was after about ten or fifteen minutes. I placed the woman on her back, with directions to raise the fundus uteri with her hands during the pains. At 10.20, when I returned, the os uteri was fully dilated, and a bag of membranes projected. The prolapsed bladder contained urine, and the catheter was used. The head entered the

brim with difficulty, but when once it was in the pelvis, the progress was very rapid; a little delay occurring, however, as the shoulders became engaged in the brim. Child born at 11.20 a.m.

Case 6.—*Partial prolapse of bladder.* Mrs. K—, first seen at 5 a.m., February 26th. Pains for twenty hours; very severe for nine hours. Extremely restless, unable to remain in any position, wishful to walk about; assumed voluntarily the supine position when lying down, as the easiest. There was frequent desire to pass water, and the pains were of the characteristic thrusting description, with much suffering about the bladder. The os uteri was dilated to two inches in diameter; the margins thick and moderately soft; the bladder was partially prolapsed.

I kept her in the supine position, and the dilatation of the os uteri made progress, but the pain continuing to be of great severity, at 6 a.m. I administered chloroform, but not to insensibility. The extreme pain was no longer felt, the uterine contractions went on naturally, and the os dilated rapidly. As the head descended into the pelvis, the chloroform was discontinued, but when it reached and rested on the perinæum, labour pains ceased altogether for an hour, after which they gradually returned, and the child was born with great ease.

Case 7.—*Contracted pelvic brim. Prolapse of bladder; version.* Mrs. J—, third child; in labour twenty hours; severe pains for ten hours; first seen 5 a.m., March 2nd. A fortnight before had thought she was in labour for some hours.

Pains in back and hypogastrium; cannot retain water more than a few minutes. Bladder prolapsed, and containing urine. When emptied, os uteri almost out of reach, soft, moist, and lips thick, no dilatation. Os drawn down, and held for some time, but the pains were suspended for the time being, and no result was obtained. Patient placed in supine position (she herself remarking that she had been

compelled to lie on her back), and left. At 10·45, though the pains had been very vigorous, there was no dilatation whatever of the os uteri. I again drew down the anterior lip, and a few good pains effected considerable dilatation; the head in the third position, After the first few pains there was no further advance. From the position of the head, and from the fact that no progress was made, though the pains were powerful and now natural, the os uteri being also perfectly soft, and the anterior lip not at all tense, I concluded that contraction of the brim of the pelvis existed, and determined to turn. I sent for chloroform at 12 noon. It was after 1 p.m., before it arrived, and in the interval the pains were the most violent I ever witnessed. I gave chloroform, and after a little delay, due to the timidity of the nurse, to whom I was compelled to trust the chloroform while in the act of turning, I effected version very easily. The promontory of the sacrum projected very much to the right of the median line, rendering the two halves of the brim very unequal, and leaving ample room on the left side, while the right side was contracted. Pulsation had ceased in the cord when I first felt it on introducing the hand, though I had heard the fœtal heart just before sending for the chloroform. The head came easily, but I had some difficulty with the shoulders.

The woman did well; the child was of course dead; and I tried in vain to restore it by artificial respiration, Marshall Hall's treatment, &c. The death of the child was not due to pressure on the cord in delivery after turning, for as I have mentioned, pulsation had ceased before this operation began; and I may remark that I have had an opportunity of observing the effect of the uterine contractions on the fœtal circulation in a case of side presentation of a twin, in which I could feel the arm, leg, ilium, and ribs, with a loop of the cord so near the umbilicus as to be out of the way of direct uterine pressure, yet at each pain the pulsations became quieter and feebler, till nearly extinct, but recovering during the intervals.

Case 8.—*Partial prolapse of bladder.* Mrs. C—, multipara; taken in severe labour at 3 a.m., March 5th, first seen at 9.15 a.m. Unable to retain urine for a month, urine now escaping with every pain. Pains incessant, and straining, with much suffering in region of bladder; constant moaning, tossing, restlessness, and tendency to hysterical symptoms.

Bladder partially prolapsed. Os uteri high, and near sacrum somewhat dilated. Patient placed on back, and left till 11 a.m., then bladder emptied, and dilatation aided as in previous cases, with good effect, relieving the pain, and advancing the labour. At 12.30 treatment repeated. Head only entered brim at 3 p.m. Delivery at 3.25.

OBSERVATIONS ON OVARIOTOMY, STATISTICAL AND PRACTICAL. ALSO, A SUCCESSFUL CASE OF ENTIRE REMOVAL OF THE UTERUS, AND ITS APPENDAGES.

By Charles Clay, M.D., Manchester.

I will, with your permission, preface the narrative of the case which forms the principal object of my paper this evening, by making a few general remarks on the statistical results, and the usual mode of treatment of ovariotomy as practised by myself; a subject so closely connected with my own professional career, as well as with the case I am anxious to communicate, that I trust I shall be excused for introducing it.

It is, I believe, well known to many (if not all here present), that for the last twenty years I have been extensively associated with some of the largest operations connected with abdominal surgery, having since the year 1842 made the peritoneal section 116 times; of which 108 were

for the extirpation of diseased ovaries; 4, where the ovarian tumour was cut down upon, knowing it to be too firmly and extensively adherent to be extirpated, but with the view of breaking up the tumour internally, and establishing an extensive ulceration by seton, all of which succeeded; once for the Cæsarian operation, and three times for the entire removal of both uterus and ovaries. These operations have been attended by a success far beyond my most sanguine hopes. At first I ventured to expect that about one third of those operated upon might be saved. The following results will show that I was not disappointed. Of the 108 cases of ovariotomy, 74 completely recovered; all of them living, and enjoying life and health, for many years afterwards; many of them having had children, both male and female, and in only two cases did the disease return in the opposite ovary. Of the last two, one died five years after the operation; the other was so remarkable, that a few particulars will not be out of place, after being operated upon by me, and an ovarian tumour of forty-eight pounds extirpated. On the second day, hæmorrhage took place from the pedicle, and I was obliged to remove three of the outside sutures, then grasp the pedicle and apply another ligature, and replace the sutures. This hæmorrhage arose from the thickness of pedicle preventing the first ligature from having its due pressure on the supplying vessels, and which had worked itself loose, before a sufficient obliteration of the vessels had taken place. The consequence of this re-application, was a very severe attack of peritoneal inflammation, which was subdued with great difficulty. The case then progressed favorably for some days, when she was secretly indulged (by her nurse) with some buttermilk, which gave rise to violent vomiting and purging, followed by a smart attack of inflammation of the mucous membrane; when this subsided great prostration took place, and for some time her life was held doubtful. From all these mishaps, however, she recovered, and some months afterwards she married and went to the United States, and there had three children. In 1861, sixteen years after the first operation, the opposite ovary

became diseased, and increased to a very large size; she now prepared to return to England, to place herself under my care. In the mean time I wrote, and requested her to consult Mr. Atlee, the principal ovariotomist of America, which she did, and was operated upon for the second time, and to my astonishment recovered. A short time ago, this patient was reported to me as quite restored to health, and capable of attending to the duties of her household. A case like this, in my opinion, speaks volumes in favour of the operation.

To return, however, to the question of the 108 cases (ovarian); 34 only, died; being somewhat short of 30 per cent. Of these 34, 10 died from the immediate consequences of the operation, or from what may be termed shock; 10 died from peritoneal inflammation, generally about the third day; 12 from prostration on or about the sixth or ninth day; and 2 from hæmorrhage. The first ten, from shock, were chiefly young females, as well as a greater portion of those forming the second division, viz., those from inflammation. Of those forming the third division (prostration), the majority were elderly, about the period when menstruation was about to cease, or had ceased altogether; and generally about the sixth day. The minority of this section being of the younger class, did not usually die till about the ninth. Of the two from hæmorrhage, one died soon after the operation from the draining of small vessels from a large cut surface, where extensive adhesions had existed. The other lived thirty hours after the operation, and then, during a frightful dream, she sprang up in bed, whereby the pedicle ligature was loosened and prematurely thrown off, and she sank from internal hæmorrhage immediately afterwards.

I will now briefly dwell on a few points in the general management of these cases, which I deem to be of considerable importance, so far as my own experience has enabled me to verify. And first as regards the temperature of the room for operation. I have always steadily persevered in maintaining it to be of very considerable consequence in the successful management of these difficult cases, to have the

temperature of the room raised to about 75° Fahr. at the time of the operation; considering that, should any long exposure of the viscera, or of abdominal cavity be unavoidable, the danger may be best met in this manner. I believe such cases so treated are less liable to end in shock. Indeed I feel convinced, that my own operations owe a considerable portion of their success to this means, and I should be sorry to discontinue the practice. With regard to the

Use of Chloroform,

I am not certain if this agent has really added to the success of ovarian operations. The first fourteen of my cases were undertaken before it was discovered, and of those fourteen, nine recovered. But though I willingly admit the almost impossibility of obtaining the consent of females (at the present time) to submit to so formidable an operation without the aid of this valuable agent; and though I am equally convinced that chloroform is of itself one of the greatest boons to suffering humanity; yet, if it could be accomplished, I should infinitely prefer to operate without it, as the patient would bring to bear on her case a nerve and determination to meet so great a trial, which would assist beyond all value the after-treatment; it would also relieve the case from that most distressing retching, and vomiting, so common after all abdominal operations where it is used to the extent that it is required in ovariotomy. And now as to the

Large Incision.

I have always been an advocate for, and practised extirpation by the large incision (that is, commensurate with the size of the tumour to be removed). I have been much censured, and greatly misrepresented, on this point, but after the most serious reflection, I still adhere to the plan, feeling as I do, its many advantages, and believing it to be infinitely superior to any other proposed. My experience sets a much greater value on having a bold and large inci-

sion through the integuments, at once affording plenty of room for every manipulation, aided by the eye, than to require a subsequent enlargement, or to drag cysts, or solid masses, through small openings, without a knowledge of what attachments may possibly exist behind, unseen, unfelt by the finger, and the mischief that might arise in consequence of such proceedings. With respect to

Ligatures.

I have for the last twelve or fourteen years, almost invariably used the Indian Hemp. In my early operations I used the strongest staymakers' silk, which I discontinue from its aptness to slip. The Indian Hemp is well waxed, the finer thread for securing small vessels, and for the interrupted sutures of the integuments; the coarse thread double sometimes three strands, I make use of for the pedicle, or for the cervix uteri when I have to excise the uterus. I have always found these ligatures answer every purpose well, and do not like to discard an old friend, even for silver, or iron wire, both of which I have tried in other cases, but have not as yet seen advantages enough to induce me to use them as a substitute for the Indian Hemp,nor am I an advocate for the Clamp.

The distressing Gulping and Vomiting,

in its aggravated form, immediately after the operation, I can scarcely help attributing (in a great measure) to the use of chloroform, since I saw but little of it in the first fourteen of my cases, where it was not used.

I must not, however, confound this with the sickness indicative of peritoneal inflammation. With regard to the first—I have never found, as yet, an efficient remedy; I have tried almost every thing I could think of, or my professional friends could suggest, with little or no benefit; and after all, perhaps a little patience (until the blood has got rid of its load of carbon), and the sipping very small quantities of gum water I have found as efficacious as anything else; taking care to adopt the general rule not to

supply the stomach with much food of any kind until its sensitiveness is somewhat allayed, and then in the smallest possible quantities, and of the simplest kind. Again, I have noticed, with some degree of interest, certain periods in the progress of treatment or

Critical Days.

A knowledge of these periodic changes, their causes, and probable consequences, has led me to watch for them, and be prepared for them whenever they should arise; by this means I have been enabled to meet many difficulties, and contend successfully with them, which, if not carefully provided for, might easily put the case beyond chance of recovery. If the patient does not sink immediately from shock (that is, within the first twenty-four hours after operation), the first critical day will be the third, and the cause of fatality, if the case so terminates, will be unsubdued inflammation. At this place I may remark that I never bleed, but entirely depend on hot fomentations, which are usually sufficient; I prefer this plan, simply because the fatality by prostration is quite enough, without adding to it by depletion in the earlier stages. The next critical period is the sixth day, when I first apprehend danger after the subsidence of peritoneal inflammation (in the elder class of females, particularly), from prostration; should, however, the case be young, this termination may be deferred to the ninth, or next critical day, which is the usual period of prostration for younger females. If the patient passes this point, it assumes a far more favorable prospect for recovery, and the critical days become of less consequence, nevertheless, I have seen the twelfth day usher in some very troublesome symptoms, consequent on the loosening or entirely throwing off the ligatures on the pedicle; and in one or two cases I have seen (about this period) a secondary attack of peritoneal inflammation, or inflammation of the mucous membrane, which if not carefully and actively managed or foreseen and prevented, may wreck the

patient. After this period I generally consider the case moderately safe, and have seldom been disappointed. I have also noticed that the right ovary is more subject to disease than the left; after diagnosing at least 1600 cases of ovarian disease, my own experience presents as a fact, that one third more of diseased ovaries are of the right side; physiologically I am unable to explain why.

In respect to Purgatives.

In the after-treatment of ovarian operations, I never advise them, but always depend, as much as possible, on ox gall, internally, backed by the use of enemas, which are either of simple gruel with castor oil, or, if the unloading of the bowels be more urgently required, of one or two ounces of the recent ox gall added to the gruel. The inspissated gall, in form of pill, acts gently without purging, by simply keeping the fæcal matter in a more soluble condition, and requires less effort to expel it. This is of great value at a time when the liver is very deficient in its action. It has also another beneficial tendency—the prevention of flatus. In fact, it is a substitute for healthy bilious secretion, at a time when it is generally deficient or wanting. The enema is at all times sufficient to unload the bowels, without straining, for I never allow the patient to empty either bladder or rectum without the assistance of catheter and enema, for the first five or six days after operation, believing such efforts only disturb the healing process of the integuments, and so retard recovery, more particularly if flatus be allowed to accumulate in the bowels.

On the Operation in respect to Age.

I have operated at all ages, from sixteen to fifty-seven; and have been pretty equally successful at most of the ages included, no age particularly presenting itself more successful than others. If the majority of young females die from shock, or from inflammation, it is equally apparent the majority at advanced ages die from prostration. Still,

had I the choice I should prefer that period of life for the operation when menstruation is about to cease or had altogether ceased. Such cases (if not worn down or too much emaciated by the disease previously), I think, have the best chance of success, are less liable to inflammation, and, I believe, bear the operation better, being more disposed to submit, and less impatient under the restraint and self-denial so necessary in such cases. Having made these observations, I may remark that I believe I have been mainly instrumental in bringing ovariotomy before the public, although I have had much to contend with, and have often been grossly misrepresented; still, in spite of every opposition, I have lived to see it established (under proper circumstances) as a legitimate operation in surgery, and practised by others with a fair share of success. Had I never accomplished any other great object in my professional career than this, I still fancy I shall not have lived altogether in vain, but have contributed something to the benefit of my species. To all who have the slightest idea of the magnitude and uncertainties of this operation, the incessant care, and constant attention required subsequently to conduct such cases to a successful issue—*such* will readily admit that a rate of rather more than 70 per cent. of recoveries is a victory in modern surgical art worth contending for. I am also impressed with the belief that this operation is not a very suitable one to offer a great prospect of success in large hospitals. The constant, almost indefatigable attention for a considerable time will always be best provided by a private operator, whose credit and interest are at stake, and who spares neither time, trouble, nor inconvenience to accomplish success. Perhaps no person not so disposed should have anything to do with extensive and important operations, particularly those of the female abdomen. In addition to these operations, I have once made the Cæsarian section with partial success, the patient living to the fifteenth day, but the poor object being in the last stage of phthisis, sank more from that disease than the effects of the operation.

Lastly, I had so far back as in 1844, extirpated both uterus and ovaries. These cases were reported in the 'Medical Times' of that year as unsuccessful operations. It will be here necessary to give a short outline of one of these cases.

A. Brooks, of Staleybridge, æt. 52. Had an enormously enlarged abdomen; the disease had existed sixteen years. The swelling did not occupy more of one side than the other, or at least the preponderance was so trifling that it could not be stated with any certainty. Menstruation had always been irregular, but never suppressed; there was much greater density on the left side; it was therefore considered by my friends and myself as ovarian. I therefore operated on January 16th, 1844. Immediately after the first incision, about twelve inches in length, it was evident that extensive disease existed, independent of the left ovarium, which was enlarged to about four pounds in weight. The uterus itself was enlarged to twenty pounds in weight, and the cystic deposit amounted to about eight pounds, making 32 pounds in all. Having proceeded so far, the question arose, what was to be done? I determined to extirpate the whole, converting the vagina into a *cul-de-sac*. The operation was soon and easily accomplished; inflammation set in and was subdued; subsequent depression and exhaustion supervened, from which she rallied. On the twelfth day she was doing so well that every reasonable hope was entertained of her ultimate recovery; a nutritious diet had been given, and everything promised well. From the fact of both ovaries and uterus having been extirpated, my interest was doubly excited. On the thirteenth day the nurse put an end to all the flattering prospect by an accident. On lifting her from the bed to ease the bedding, the patient fell on the floor somewhat violently, although three women had hold of her; the result was, inflammatory action arose, and though every assistance was rendered, she died on the morning of the fifteenth day. The result was most mortifying, for had not the accident happened, I feel assured the case was doing so well that a recovery might have been confidently anticipated.

The length of time from the operation, and the difficulties already overcome, fully entitle me to think so. This case, of course, will be used statistically against the operation of ovariotomy, although in reality it was a most successful one as far as the operation was concerned, and was, in fact, the first operation in the world where both uterus and ovaries were extirpated through the abdominal walls.[1] Reflecting on this case, it appeared to me quite possible for a female to recover with the uterus extirpated. I had frequently extirpated one ovary successfully, I had also successfully removed both ovaries; and in the case just given both the uterus and ovaries had been taken away, the patient lived to the fifteenth day, and in all probability would have entirely recovered but for the accident.

I therefore determined in my own mind on the extirpation of the uterus and its appendages, if ever a favorable opportunity presented. I was nearly attempting it three years ago in a case brought to me by Dr. West, of this Society.

The third case, which presented itself to me in January, 1858, I now give in detail:—

Miss N—, of S—, consulted me respecting a large abdominal tumour; she had complained of uneasy symptoms for some years previously. In other respects quite healthy, was but little emaciated; menstrual periods had always been quite regular, the tumour was largest on the right side, very solid, irregular in its form, intensely hard, easily moveable, indicating no adhesions of any consequence. Its weight at this time appeared to be five or six pounds. She complained of weight and feeling of bearing down. On making a vaginal examination, I found the tumour filling up a large portion of the pelvic basin, and it was with difficulty the finger could pass along the sacrum, and still greater in trying to reach the os uteri, in the direction of the pubes, behind which I supposed the os uteri was to be

[1] It is necessary to make this statement, as Professor Koeberl, of Strasburgh, thought he had performed this operation first in April 20th, 1863. My first was in January 16th, 1844; the second, January 2nd, 1863.

found, as there was no trace of it in any other direction. Up to this period there had been no difficulty in passing urine; no obstruction to menstruation, but it was always necessary to use an enema to secure a movement from the bowels, and then the forced fæcal matter was flattened like tape. As the tumour had not apparently increased in size for the last few months, I advised her to wait, that its progress might be watched; but if the difficulties in voiding urine or motions increased, to visit me again. My first impression of this case was that it was uterine, although it in many points resembled ovarian; my inability to reach the os added to the difficulty, but the intense hardness was only such as is felt in uterine fibrous masses, whilst the irregular lobulated form and its mobility indicated an ovarian character; one point, however, it is necessary to state, that whilst the pelvic mass was immovable, it was not in the least affected by the mobility of the abdominal portion. In 1862 she visited me two or three times; the main features of the case continued much the same, except that she appeared more emaciated, and the filling up of the pelvis was now so nearly complete, that I apprehended very soon an entire stoppage would occur, and inability to discharge the contents of the bowels and bladder would force me to some step for relief. It was impossible to pass the finger along the curve of the sacrum without injuring the perinæum, and by the pubes it was impossible to pass even a bougie. I therefore fixed the 2nd of January, 1863, for the operation, stipulating that, after making an exploratory incision, I should be at liberty to forego the extirpation if any peculiar difficulties presented themselves. On the day stated, in presence of Dr. Hammond, of Preston, Mr. Carr, of Sheffield, and Mr. Edlin, surgeons (the room being previously heated to 74° Fahr.), I made an incision of about eleven inches, when a large uterine tumour came in view, of very irregular shape, one portion of which was firmly imbedded in the pelvis; the upper and larger portion (that could be easily moved from side to side) was quite free from any but its natural attachments, and I hoped the pelvic portion would prove also free,

but though there were no adhesions, it was with the greatest difficulty it could be dislodged from the pelvic cavity, and it required considerable force to effect it. The ovaries on both sides were close to the uterine tumour, the broad ligaments being entirely involved in it, and forming a partial covering to the mass. At the posterior part of the tumour were three nodules or excrescences, about the size of small eggs, indicating beyond all doubt the fibroid character of the disease. The right ovary was diseased, but not much enlarged; the left ovary about the natural size, but discoloured; and the surface of the tumour, where it was covered by the broad ligaments, was freely injected with vessels. I dissected the broad ligaments from the tumour, and securing them by ligature divided them, and continued my progress down to the cervix. Having satisfied myself by passing my finger well round it, I placed a ligature on it just immediately above the plane of the os, consisting of three strands of strong Indian hemp, and then divided the cervix. My intention in so doing was to secure the os itself for the summit of the vaginal canal, and to keep entire the vagina in its full integrity, rather than run the risk, as I had done in the case of 1844, of gathering together within the ligature the vaginal coats, just below the os; in that case, if it had recovered, I should have had a short and contracted vaginal canal, with less certainty of healing. In the present case I placed full reliance on the powers of nature, by the help of the ligature, to obliterate the passage through the os, and prevent the admission of air (so much feared by many) within the abdominal cavity. The tumour was removed with very trifling loss of blood; the integuments were brought together and secured by six interrupted sutures, padded, bandaged, and the patient placed comfortably in bed in about fifteen minutes from the commencement. Three grains of solid opium were given.

Immediately after the operation, Prof. Simpson arrived unexpectedly from Edinburgh, and carefully examined the tumour as well as the patient, in which he felt great interest. At his special request the tumour was forwarded to

Edinburgh for more minute investigation. I have since received from him the following remarks, which I have extracted from his letter, dated January 21st, 1863 :—

"I have repeatedly and carefully examined the mass of fibroids which you extirpated. The os uteri is not included in it; but the cervix uteri appears to have been divided and cut through immediately above the plane of the os. The uterine cavity is dilated and elongated, and contains a semi-pediculated or polypoid fibroid of the size of a small walnut. The whole mass weighs eleven pounds; one ovary and fallopian tube is attached to it, the other cut through in the course of its length. The whole mass then consists of the entire body and the cervix up to the os, with a large mass of fibroid tumours growing in their walls.

"I have had a drawing made for a woodcut, of which I will soon send you a copy, intending to illustrate the position and form of fibroids, and the changes produced by them in the uterine cavity.

"Your case may turn out as a precedent for operative interference in some exceptional cases of large fibroids of the uterus, and I congratulate you most sincerely on the happy recovery of your patient.

"Yours very truly,
"J. Y. Simpson."

I need not occupy your time with any further description of the tumour after this letter, except to remark there was but little vascularity in the mass itself; but the broad ligaments seemed more freely supplied with blood-vessels than is usual. I need not occupy much of your time in the after treatment of this case, being very similar to that of ovarian extirpation. For the first twenty-four hours the retching and vomiting were extremely troublesome, but she had occasional short sleeps from the opiate, which was renewed to the extent from eight to nine grains in the first day and night. The second, third, and fourth days were entirely occupied in subduing peritoneal inflammation, which had ceased by the end of the fourth day. The secretion

of the urine was free from the first, and the bladder was often emptied by catheter; after the fourth day it was more than usually copious (which I always esteem a favorable sign). On the fourth day the bowels were relieved by enema, and part of the interrupted sutures removed (I generally remove them on the third day); but in this case one or two of the sutures had broken through the skin already, and I thought it best to keep the remainder in a little longer than usual; the abdomen was now assuming its natural size, but on the sixth day it again became distended, and I feared some further inflammatory action, and active fomentations were resumed with good effect. On the eighth day beef-tea and isinglass were taken and relished, which was now necessary, as some indications of prostration beginning and increasing the following day (which was the ninth), so as to create some alarm for her safety; she became also restless, and required opiates. On the tenth day she had passed a good night, and was considerably better; eleventh and twelfth days, still improving, the bowels acting regularly, occasional natural sleep, and a desire for food. On the fourteenth day pus was freely discharged along the ligatures, showing the work of reparation was progressing favorably. The urine was loaded with a dark sediment that had a very fœtid smell, and continued in this condition for some days after. On the fifteenth day two of the ligatures came away, the pus decreased, the urine was less fœtid. Sixteenth, seventeenth, and eighteenth days were marked by general improvement; all the ligatures except that on the cervix had come away; this latter still felt firmly adherent, and I was not in the least desirous to use traction. I therefore determined to allow it time to release itself. Nineteenth day, food taken with quite a relish, consisting of mutton chop, oysters, poached eggs, milk and light puddings, porter, and occasionally a little wine. Twenty-first and twenty-second days she sat up (two hours at a time). From this time her progress was that of continued improvement; occasionally her nights were rather restless, from the amount of food the stomach was called upon to

digest; disliking the constipating effects of usual opiates, I gave thirty-five drops of Napenthæ as a sedative, and found it answer every purpose without confining the bowels. On the completion of the thirtieth day from the operation I still found the ligature attached to the cervix, but somewhat looser, but as there was no wound except the small aperture through which the ligature came out (and that no inconvenience) I let it remain.

On the 6th of February, 1863, and thirty-five days from the operation, my patient returned to her friends, and bore a railway journey of nearly forty miles, without any inconvenience or apparent fatigue.

This, I believe, is the first operation of its kind established as a cure in the British dominions; *that is, the extirpation of the uterus and its appendages entire, through the walls of the abdomen.* The cases in 1844 were (as far as the operation and their immediate consequences were concerned) decidedly successful, and, but for an accident as unforeseen as mortifying, a recovery was all but certain.

I would just add in conclusion, that in four cases of ovarian cysts—injected by strong tincture of iodine—*three* have entirely recovered; one died from inflammation; two of the cures, though some years ago, show no signs of the disease returning.

Mr. Baker Brown prefaced his remarks by warmly thanking Dr. Clay for the very practical and admirable paper just read. Mr. Brown considered it one of the most valuable he had ever heard, and wished it had been brought forward a few weeks earlier, as it was calculated to strengthen the hands of other ovariotomists, and enable them to contend against those who doubted the value of the operation. With regard to the temperature of the room, Mr. Brown stated that he believed that Mr. Lane, than whom no one had been more successful in ovariotomy, disregarded the value of this point, as did also another gentleman present at the meeting, who had likewise had great success. For himself, Mr. Brown believed that where the operation was likely to be long, and the viscera long exposed, it was of great importance; but that where the operation was quick, and the viscera were kept back by hot

flannels, the question of temperature would not affect the success. As to the long incisions, he believed Mr. Walne followed Dr. Clay; whereas Dr. F. Bird and Mr. Lane had contended for the short incision, and with good results. Mr. Brown always made a small incision first. If it appeared that on tapping the cyst the tumour could be withdrawn, he did not enlarge it; but if there appeared strong adhesions, or the tumour was very multilocular, he found it easy to make the incision larger, and agreed with Dr. Clay that it was advisable to see clearly where the adhesions and difficulties in removing the tumour were situated. At the same time, with the very large success of Dr. Clay, it was folly to say that short incisions were preferable to the long. Dr. Clay still preferred the ligature of Indian hemp. Mr. Brown had used it till the invention of the carpenter's callipers as a clamp, which he found more convenient and comfortable. He could not, however, agree with Dr. Clay as to the inadvisability of bleeding. In two or three cases where peritonitis had come on quickly after the operation, he had found venesection most valuable, and attended with success. He always advised hot linseed-meal poultices to be applied over the whole abdomen when there was a chance of peritonitis, believing that they kept hot longer than ordinary fomentations. Mr. Brown's experience as to the frequency of the ovary attacked was contrary to Dr. Clay's. He had examined many hundreds, he might say thousands of cases, but thought that one could not decide which ovary was diseased till an incision was made. His experience, from cases submitted to operation, was that the left ovary was most frequently affected. He agreed with Dr. Clay that age does not make much difference. He was glad to hear that Dr. Clay had come to the conclusion that the question of success did not depend on the operation itself, but on the after treatment. Mr. Brown believed that in his earlier operations he lost more patients because the after treatment was not so well understood as now. He had learned from Dr. Clay the valuable practice of never giving the patient anything but the most simple food till asked for. He preferred giving beef-tea and wine, if required, by the rectum for three or four days after the operation. Mr. Brown considered Dr. Clay's testimony valuable as to the great advantage of small over general hospitals for these operations, not on account of the operation itself, but because the nursing, ventilation, and atmosphere were so much better in small special institutions. Mr. Brown had twice removed both ovaries with success. He thought that the question of exploratory incisions had been unfairly treated by the profession. They were made with an honest endeavour to ascertain the truth before risking the patient's life. Mr. Brown had never seen a fatal result follow them, and thought they should be commended and encouraged, not condemned. He was glad to hear Dr. Clay say that in his last operation he had made it a stipulation

that it should be left to him to decide whether he should proceed after making an incision. As to opium, Mr. Brown had at one time been as great an advocate for it as Dr. Clay; but believed that it increased the sickness, and he now never gave it unless imperatively called for.

Dr. Clay, in reply, expressed his great gratification at the manner in which the paper had been received by the Society. With respect to the details of the operation, he adhered to the principles laid down in the paper. It was remarkable that many of the best recoveries after ovariotomy had taken place in his practice after making the long incision, and where the tumour was large he preferred it. The use of Indian hemp for ligatures he still preferred. With respect to the remarkable case of extirpation of the uterus, he would observe that on his way to town to attend the meeting he had accidentally met the patient who had been the subject of the operation at a railway station, in perfect health.

DESCRIPTION OF PLATE.

1. Left ovary. Half size of the original, and four or five times larger than natural.

2. Right ovary also enlarged and cut through lengthwise in extirpating the mass.

3, 3. Separate fibroid masses.

4. The cervix uteri cut through above the ligature.

The annexed drawing, about half-size of the original, and weight upwards of 11 lbs.

April 1st, 1863.

Dr. OLDHAM, President, in the Chair.

Present—44 Fellows and 5 visitors.

Dr. Tyler Smith presented a specimen of tubular fœtation with twins, sent to him by Dr. Haydon, of Bovey Tracey.[1]

Some discussion having arisen between Dr. Barnes, Dr. Oldham, and Dr. Tyler Smith, regarding the relative ages of the twins, it was agreed that the last-named gentleman and Dr. Braxton Hicks should be asked to examine and report upon it.

Dr. Oldham was anxious to direct the attention of the Society to the possibility of performing gastrotomy in some cases of tubal pregnancy where death was about to result from internal hæmorrhage. The main difficulty was the diagnosis, which, however, in sudden tubal rupture was well marked. The danger was so great that it justified any expedient which might have a hope of success.

Dr. Barnes joined with the President as to the importance of the question. He had witnessed two cases in one month; both of them were diagnosed during life, and in one the expediency of gastrotomy had been discussed. In the early stages he thought the difficulty of getting at the sac very great, but after the third or fourth month the operation would be not only feasible but expedient.

[1] See December Meeting.

ON A VARIETY OF CHRONIC PAIN IN THE BACK.

By Henry Gervis, M.D. Lond.,

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS; ASSISTANT-OBSTETRIC PHYSICIAN TO, AND JOINT LECTURER ON MIDWIFERY AT ST. THOMAS'S HOSPITAL.

The malady which for a few minutes this evening I venture to bring before your notice is one which, though perhaps more surgical than obstetric in its pathological character, yet from its having occasionally been thought to be dependent upon uterine disease, and treated as such, is, I think, not unworthy of our consideration as obstetricians; particularly as its recognition when present enables us with certainty to direct our treatment to its cure, and so relieve the patient from a complaint apt, when overlooked, to be both chronic in duration and distressing in character. The following case was the first which drew my attention to the subject, and as the disease itself is no novelty, and as one case pretty much resembles another, I will not trespass on your time by giving the details of others which have subsequently come under my notice.

In April, 1860, Mrs. D—, æt. 30, came under my care as an out-patient of St. Thomas's Hospital; she had a somewhat worn aspect, but did not appear otherwise unhealthy; her particular complaint was of a constant pain in the lower part of the back, which she stated that she had suffered from with but little intermission, since the year 1854, the date of her last confinement. She had been treated for it by both private and hospital physicians, and they all had spoken of it as a "weakness," connected with uterine disease; thinking it, I presume, that sympathetic "dolor dorsi" which constitutes so frequent a symptom in the history of uterine affections. She had however, never suffered from any other symptom of such disease, excepting an occasional catamenial irregularity and an occasional slight leucorrhœa, but at the time I first saw

her, the catamenia were regular and she had no abnormal discharge, and yet the pain in the back was both constant and severe.

On a vaginal examination, digital and specular, the uterus was found somewhat large but without tenderness, and otherwise healthy. No disease, in fact, was detectible to which this chronic pain could in any way be ascribed. On a careful examination of the back, I found that she defined the pain as being especially connected with the left sacro-iliac synchondrosis; on percussion or pressure upon this articulation there was a marked amount of tenderness, and on taking hold of the ala of the corresponding ilium, and pressing it backwards and forwards, she experienced a considerable increase of the pain. On further questioning her, I found that the pain was least when she was lying at rest; worse when she walked, and greatly aggravated by a false step, a sudden twist, or any other unexpected movement which affected the articulation, as in slipping over the kerb, missing a stair, treading upon a loose stone, &c. Her general symptoms approximated to those of slight hectic; there was some variable febrility, some loss of flesh, and appetite, and a sense of weariness, induced by the constancy of the pain. I could detect no local external fulness or thickening, but the tenderness was considerable, and limited to the synchondrosis. She was not a rheumatic subject, and though never very robust, had previously to the occurrence of this pain enjoyed fair health. I looked, therefore, upon the case as one of a chronic congestive, or subinflammatory condition of one or more of the tissues of the synchondrosis, following indeed her confinement, but unconnected with existing uterine disease. It was treated upon ordinary principles, by rest, the local application of blisters in narrow strips, of about two inches long and one broad (within a limit I defined by the pen); and as an internal medicine she took the bichloride of mercury in decoction of cinchona, three times a day, and at night some extract of henbane and Dovers' powder, with an occasional aperient. She soon began to improve, and within eight weeks was

completely relieved from a pain which had previously scarcely left her for six years. Her general health became also re-established. I of course should not have ventured to bring such an ordinary surgical case before the notice of this Society had it not happened that by several practitioners this pain had been considered wholly dependent upon an associated uterine disease, and that since the occurrence of this case, I had seen others in which a similar affection of one or other synchondrosis constitued their most important element.

Of the post-mortem pathology of these cases I am unable to speak, as, fortunately for the patient, they rarely permit the scalpel or the microscope to aid in their elucidation.

In some cases there is a pain in the back, apparently of a rheumatic character, affecting the ligamentous and fibrous tissues about the articulation, and in some the periosteum is evidently affected. In these the iodide of potassium in combination with alkalies and other antirheumatic remedies is of especial service; but in others, as in the case detailed, the affection is certainly of the deeper-seated tissues, the cartilage and fibro-cartilage, viz., which connect the bony surfaces. In four cases which I observed the pain came on after parturition, and in two the child was said to be an unusually large one. Possibly, in these, this was the direct mechanical cause of the subsequent condition of the articulation, the undue strain upon it originating that condition of its tissues to which the chronic pain which followed was referable. The patient whose case is detailed had borne no other child since the first occurrence of the pain, but another patient, in a labour subsequent to the one from which she dated the commencement of the pain, suffered much from it during her labour and from its aggravation afterwards. I need scarcely refer to the opinion founded upon what is said to occur in quadrupeds, that the human pelvis during labour undergoes some enlargement of capacity by a slight yielding of its articulation, as I believe it has been pretty generally abandoned, but even if it were so, in those cases in which the condition under consideration appears to originate in a

mechanical pressure or tension during parturition, the ordinary pressure must have been more than usual, or the capacity to yield less. But in other cases, with an equally defined affection of the synchondrosis, no such origin was assigned, but it was variously ascribed to a cold, a strain, "weakness" from some womb affection, &c. I have never met with it in the nullipara. Sometimes there is some varying increase of pain during the catamenial period, and this might easily suggest the idea that some uterine mischief was the cause of the backache; but as this variety of pain in the back may certainly coexist with a healthy uterus, the increase of pain at the monthly period is probably due to that customary amount of lumbar uneasiness which often accompanies the periodic congestions of the uterus, and which, in these cases appears to the patient to amalgamate with her more constant pain; though really, as regards its cause, distinct. I presume, then, these cases to be mild forms of an affection whose severe form would be represented by abscess, and I think that the cases which occasionally occur of subacute or chronic inflammation, and of threatened or actual suppuration of the symphysis pubis occurring generally after a severe labour from large size of the child, and whose diagnosis is unmistakable, are confirmatory of the view I would suggest of the cause of an occasional form of chronic "pain in the back."

CASE IN WHICH AMAUROSIS WAS OBSERVED EIGHT TIMES IN SUCCESSION AFTER PARTURITION.

By H. E. Eastlake, Esq., M.D., L.K.Q.C.P., Ireland; &c.

PHYSICIAN TO THE BRITISH LYING-IN HOSPITAL; PHYSICIAN-ACCOUCHEUR TO THE ST. MARYLEBONE GENERAL DISPENSARY; PHYSICIAN TO THE NEEDLE-WOMEN'S INSTITUTION, &c.

Eliza Tibbey, æt. 34, married; the wife of a painter. The patient states that she has had nine children at the full time, and no miscarriages. She has

always enjoyed good health. In three of her confinements she was attended by medical practitioners, in the other six she was delivered by midwives. As far as I can learn, all her labours have been natural. She has never lost more than the normal amount of blood, and after the birth of her last child (which took place on the 28th of last January) the hæmorrhage was peculiarly slight, according to the account of the midwife who attended her.

On the occasion of her first lying-in, she tells me that she made a quick recovery and nothing peculiar happened, her sight being then perfectly good; but on the second or third day after the birth of her second child, and after all her seven subsequent labours, she has suddenly become totally blind in both eyes, and also partially unconscious; but when her senses returned, the amaurotic condition remained, and on an average has lasted from three to five weeks.

I saw her for the first time on the 31st of last January, three days after her confinement. Her pulse was rather weak, but there was no marked pallor, nor did she exhibit any great signs of debility. Her intellect was certainly clear at that time, though I believe that she had been somewhat incoherent the day before. She assured me that she appeared to be in absolute darkness, and after a few experiments to satisfy my own mind on that point, I was thoroughly convinced that she could neither distinguish any object, nor had she even the perception of light.

I should perhaps mention that she had never taken any ergot; there was no suppression of the milk or lochia, and I carefully ascertained that she had not been subject to any periodical or long-continued discharge which had suddenly dried up. There was no albuminuria. She complained of nothing but her want of vision, and all her other functions appeared normal. Being a patient from the St. Marylebone General Dispensary, I arranged that she should be seen by my colleague, Mr. Zachariah Laurence, whose reputation as an ophthalmic surgeon must be well known to the Fellows of this Society. Having first well dilated the pupils by the

application of atropine, he proceeded to institute a most careful and complete ophthalmoscopic examination, but the evidence adduced from it appears to be entirely negative, except that it demonstrated the existence of a somewhat contracted state of the retinal arteries; this latter fact, however, being in all cases a question of degree, may be considered comparatively unimportant.

I may add that no strabismus existed, and that no peculiarity either in point of colour, form, size, or consistence, was noticeable in the eyeball. As the patient was by no means a robust or plethoric woman, and, as I have stated, her pulse being rather weak, I allowed her a liberal diet, and since her getting up, she has been taking bark, with mineral acids, wine, &c., with marked improvement.

The most remarkable feature in this case seems to be its apparently utter isolation from the various forms of amaurosis attributable to other causes. In the rejection of these we might infer by a negative process of reasoning, that this phenomenon was necessarily dependent in some way upon the puerperal condition of the patient. I confess that I should have been induced to incline to this opinion, had I succeeded in discovering a parallel case either in the history of obstetrics or in the modern practice of midwifery. But I have failed to establish a precedent. Dr. M'Clintock, the late master of the great Lying-in Hospital, in Dublin, whose experience as an accoucheur, I need scarcely say, fairly represents the probabilities of such an occurrence in our day, assures me that he has never met with a similar example; and Mr. Wilde, whose experience as an oculist must be very considerable, also states that he has never seen a case of this kind.

The only authors, as far as I have been able to ascertain, who record anything at all relating to this subject are Beer, in the year 1817, and very recently Dr. Ramsbotham. The former, in the second volume of his "Lehre der Augenkrankheiten," describes a form of amaurosis which occurs at the commencement of pregnancy and disappears after parturition, but which is always connected with nausea and un-

controllable vomiting—he adds that we must be careful to distinguish this kind of amaurosis from that which arises sometimes during the last months of pregnancy, and is due to the violent and continued congestion of the head, particularly if there is much fæcal accumulation in the intestines with constipation. This form of amaurosis generally lasts until the birth of the child, or if the labour is much prolonged, and accompanied with great exhaustion, the blindness he stated is likely to continue: He also relates a case of a young Jewess, who in her first three pregnancies began to grow blind always immediately at the commencement of utero-gestation, and in the third or fourth month she became completely amaurotic, but, on the first two occasions, remained so only until after parturition, but lost her sight entirely after the third confinement.

Dr. Ramsbotham describes a case somewhat similar, under the head of cerebral affections in pregnancy, in the 'Medical Times and Gazatte,' of March 7th. I will quote that portion of it which has any interest connected with the one I have brought before your notice.

Dr. Ramsbotham first saw the patient on the 14th of June, 1842, she was then in the last month of her pregnancy.

He says: "The earlier months had passed over very well, but about six weeks before, she began to lose the sight of both eyes simultaneously, and continued to get worse by degrees until my visit, when she was so completely blind that she could only just point out the situation of the window.

She had not suffered any pain in the head, nor any unusual drowsiness; her recollection was perfect, and she was quite sensible. The pupils were much dilated, the right more so than the left. The pulse was quick and small. She was cupped, leeched, blistered, and slightly salivated, without relief, and continued getting worse until she could not distinguish the brightest sunshine. On the 23rd she began to feel a tingling and numbness in the right arm and leg, without any loss of power, and, on the 24th, Dr. Blundell

met us in consultation. He feared, as I did, that convulsions or apoplexy would occur during her labour.

He recommended that more blood should be taken by leeches to the temples, and that the mercury should be continued . . . . She went into labour at midday of the 28th, and was delivered ultimately the next day by craniotomy, owing to the pelvis being below the average size—the child being putrid—no convulsions occurred . . . . .

He concludes by saying:

"As far as her labour was concerned she went on exceedingly well; but the blindness, numbness, and tingling remained without diminution for ten days. After that, she gradually began to mend; in a month she could distinguish objects; in six weeks she told me the hour of my watch, and on the 24th of August she went out of town very weak, but able to stand and walk with assistance, and she had completely recovered her sight . . . . She had one child afterwards, without any return of the symptoms; but as she left that part of the town I am not aware whether she ever bore another."

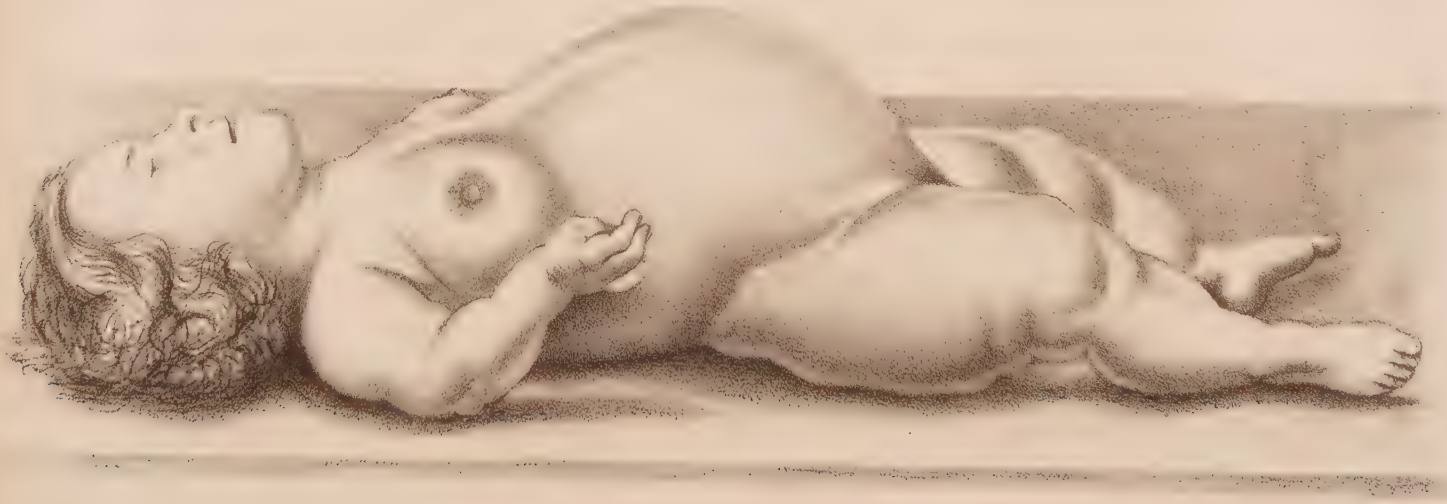
The details of these cases, it will be observed, do not completely coincide with those which have come under my notice. Whether there may be any analogy between them, and how either or all may be connected, however remotely, with parturition, are points upon which at present I do not venture to theorise; I have merely stated the facts as I observed them, and I shall willingly await the opinions of any of the Fellows of this Society who, through their research or experience, are enabled to throw any light upon this very interesting subject.

CASE OF CÆSAREAN SECTION.

By J. G. Swayne, M.D.,

PHYSICIAN-ACCOUCHEUR TO THE BRITISH GENERAL HOSPITAL, AND LECTURER ON MIDWIFERY AT THE BRITISH MEDICAL SCHOOL.

Mary Ann —, the subject of this operation, was 42 years of age, and unmarried. She lived in the country, about four miles from Bristol, and was chiefly employed in doing the work of a cottage which she occupied with her brother. On inquiry, I learned that she had been pregnant about a year previously, but had the good fortune to miscarry at the end of the second month. Not taking warning, however, by this escape, she yielded, in an evil hour, to the solicitations of a young man about half her age, and the result was that she again became pregnant. Ashamed of her situation, she said nothing about it until the full term had elapsed, and labour pains had set it, when she applied, in her difficulty, to my friend and former pupil, Mr. Henry Grace, of Kingswood Hill, near Bristol. Mr. Grace visited her on the morning of December 24th, 1862, and at once perceiving the serious nature of her case, brought her in to the Bristol General Hospital, for the purpose of consulting me about her. I saw her very soon after her arrival, and was much struck with her extraordinary, not to say hideous, appearance. She was quite a dwarf in stature, her height being only four feet and half an inch. Her head was as large as that of a full-sized woman, and her trunk was remarkably long in comparison with her whole height. Her limbs, however, were very short, especially the arms, which, when hanging by the sides, scarcely reached below the waist. The shortening was much more marked in the forearms and legs than in the arms and thighs. The fingers were short, thick, and knotty. The whole figure was very stout and muscular, and there was a great quantity of subcutaneous fat, which lay in rolls in different parts of the body, particularly on the extremities, where it produced an



W West Lith.

appearance like what are called the "double joints" of infants. (All the peculiarities just mentioned are shown in the accompanying drawing (fig. 1), which I made from the body as it lay on the table during the post-mortem examination). The pelvis, externally, did not seem to be very deficient in its transverse diameters, but the antero-posterior were evidently much below the average, and a very remarkable depression was noticeable about the centre of the sacrum. I learned, on inquiry, that all this deformity was congenital, and was in no way traceable to rachitis or other disease. Mr. Grace informed me that she had been in labour about sixty hours before her arrival at the Hospital, and that labour was ushered in by a partial evacuation of the liquor amnii, which continued to dribble away for two days, but that the waters had accumulated and ceased to run, and were distinctly felt by him when he examined her at the hospital. At that time, when I saw her, her general condition was good, there was no fever or heat of skin, and pains like those of the first stage were coming on about three or four times in the course of an hour. The fœtal heart could be distinctly heard with the stethoscope. On examining her per vaginam, my finger at once touched a hard body, apparently occupying the cavity of the pelvis, but this I soon found to be the projection formed by the anterior part of the sacrum. I could only reach the os uteri by passing my finger up immediately behind the symphysis pubis. It was very high, and was dilated nearly to the size of a crown piece. Its edges were soft and yielding, and within them I could feel the bag of the waters and the head of the child. I had some difficulty in reaching the latter, for it was quite above the brim of the pelvis, and very much in front. I found that the deformity of the pelvis was so great that when I passed up the fore and middle fingers of the right hand, the edge of the one in contact with the symphysis pubis, and of the other with the projecting sacrum, I could scarcely separate them an eight of an inch from each other. From this I estimated that the conjugate diameter of the pelvis covered by the soft parts could not be more

than one and a half inch. On examining the sides of the pelvis, I found that there was even less room there, and I came to the conclusion that the sacro-pubic was the greatest antero-posterior diameter of the pelvic cavity. Under these circumstances, it appeared to me that to attempt delivery by craniotomy would be to cause the death of the child, and most probably that of the mother also. If I succeeded in the attempt, she would, in all probability, sink from the injuries resulting from so difficult and protracted an operation, and if I failed, the Cæsarean section would then have to be performed under the most disadvantageous conditions. My colleagues, the surgeons of the hospital, who consulted with me about the case, took the same view of it, and we accordingly decided that the Cæsarean section should be at once had recourse to. The operation was performed on the same evening by my friend Mr. Coe, the senior physician, assisted by Mr. Grace and Mr. Clarke. The temperature of the operating room having been raised to 80°, and the patient having been placed fully under the influence of chloroform, Mr. Coe emptied the bladder and passed a sound into it, to ascertain the height in front to which the fundus extended. This was a very useful precaution, for the bladder was found to be in contact with the abdominal parietes for nearly three inches above the pubis. The peritoneum having been carefully cut through on a director, the surface of the uterus was brought into view. As it had previously been ascertained by the stethoscope that the placenta was situated on the right side, the uterus was divided by an incision on the median line, of nearly the same length as that through the abdominal parietes. A good deal of blood was poured out from the uterine vessels at the first incision, but this had nearly ceased by the time the membranes were brought into view. These were then opened, and a sponge applied to the opening, to absorb any liquor amnii contained in the uterus. Mr. Coe then seized the breech of the child, and removed it from the uterus without much difficulty. The infant was a fine male child of average size; it at first made little or no effort at respiration, but was speedily restored

by using the means recommended by the late Dr. Marshall Hall. The placenta was then taken away, and, as the uterus did not show much disposition to contract, the wound was left open for a few minutes until the oozing from the uterine vessels had pretty well ceased, when, after the peritoneal surface of the uterus had been carefully cleansed, the edges of the abdominal incision were brought together and maintained in apposition by several gilt pins with wire sutures between them. Four or five broad strips of adhesive plaster were also passed across the abdomen between the pins, so as to act as a kind of bandage.

As there was some degree of prostration after the operation, a little gruel with a teaspoonful of brandy was given her, and she was ordered a pill containing a grain of opium, every three hours.

I saw her on the next day (December 25th); she had had a restless night, without sleep, and had suffered from constant nausea. There was much pain, tenderness, and tympanitic distension of the abdomen. Pulse 126, small and wiry; tongue covered with a thin white fur; countenance sallow, with a deep red flush on each cheek; much thirst; the urine had been drawn off by catheterism, but none had been passed naturally. To have some soda-water; to continue the pills and to take three grains of calomel and one grain of opium immediately, and one ounce of Spt. Vini Gallici, every hour.

December 26th.—The sickness continued until the middle of last night, when it ceased. But there was a marked increase of prostration and also of the tympanitic condition of the abdomen. To leave off the Spt. Vin. Gallici, and to take, instead, a teaspoonful of brandy every half hour.

I saw her again at 3 p.m. on the same day. She was then pulseless and unconscious, and in about ten minutes afterwards expired. This was exactly forty-two hours after the operation.

A post-mortem examination was made twenty-four hours after death. On opening the abdominal cavity we at once noticed evidences of peritoneal inflammation, but these

were not very marked in comparison with what are usually observed in the bodies of those who have survived for a similar period after some other lesions, such as perforation of the intestines, for instance. The surface of the intestines was reddened and injected, but not to a great degree, and it was but slightly roughened with deposits of lymph. The peritoneal cavity contained no coagula and little or no serous effusion. The uterus itself was large, and not much contracted. The external portion of the incision in the uterus gaped widely, but the edges of the internal portion were in contact. The incision measured three and a half inches, and the entire uterus eight inches.

The pelvis was taken out and carefully measured, after all the soft parts lining it had been removed. The brim was not of that figure of 8 form which is so often noticed in cases of deformity from rachitis, but was somewhat kidney-shaped, the encroachment upon the pelvic cavity being almost entirely posterior, and being occasioned, not by the promontory of the sacrum, but by the second portion of that bone, which was projected forwards very much towards the symphysis pubis (see drawing). Thus the anterior part of the sacrum, instead of forming a hollow, presented a convexity, which was most prominent about the centre of the pelvic canal, in which part also the contraction was most marked. I shall therefore give the measurements of the diameters of the pelvic cavity, and not of the brim.

The antero-posterior diameter, from the centre of the symphysis pubis to the second bone of the sacrum, was exactly one inch and eight tenths.

The antero-posterior diameters of the centre of the pelvic cavity were greater than those of the sides. The left side was the most capacious. Its antero-posterior diameter would be best represented by a line drawn from just above the second sacral foramen, on that side, to the pubis just above the centre of the left thyroid foramen. This measured one inch and six tenths. A similar diameter, on the right side, measured one inch and four tenths. The

transverse diameter of the pelvic cavity was four inches and eight tenths.

The following were the principal measurements of the pelvis exteriorly :

The greatest transverse diameter was between the anterior superior spinous processes of the ilium, and measured eight inches and three quarters.

The antero-posterior diameter from the front of the symphysis pubes to the back of the sacrum measured exactly four inches.

The distance between the tubera ischii was four inches and three quarters.

Thus it will be observed that, contrary to what is often the case in deformed pelvis, there was less room for obstetric operations at the sides of the pelvis than in the centre, and it was this circumstance that chiefly determined me to recommend the Cæsarean operation.

The antero-posterior diameter of this pelvis is about equal to the average length of the same diameter in most of the cases of Cæsarean section that have been recorded. For instance, M. Velpeau has collected eighty cases in which the measurement of the conjugate diameter was given.

It was	1	inch in	1	case.
	$1\frac{1}{2}$	,,	8	cases.
	$1\frac{1}{2}$ to 2	,,	23	,,
	2 to $2\frac{1}{2}$	,,	25	,,
	$2\frac{1}{2}$ to $2\frac{3}{4}$	,,	5	,,

The unfortunate result to the mother was evidently produced by the shock of the operation and the subsequent peritonitis, and did not appear to depend on hæmorrhage, or other accident arising from it.

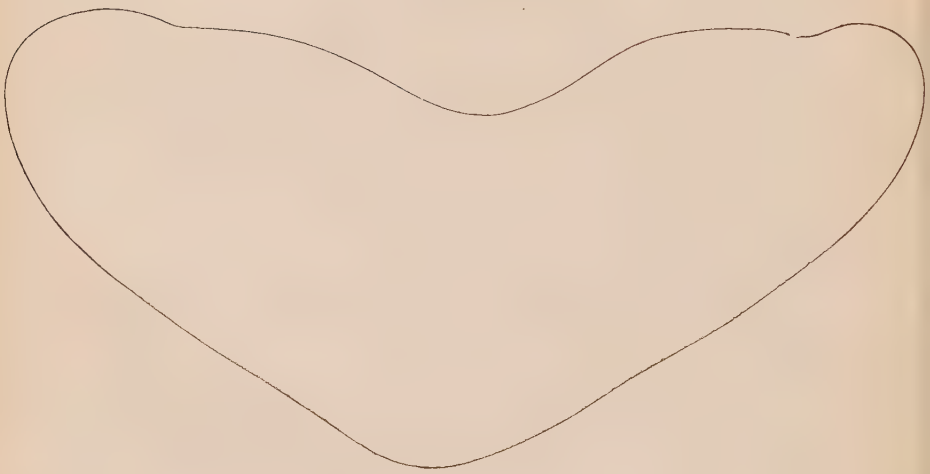
I should add that the child is, at the present time, alive and well.

Fig. 1.

Perpendicular section of pelvis.

Fig. 2.

Outline of upper strait of same.



Mr. SPENCER WELLS wished to know whether the opening in the uterine wall had been left to close spontaneously, or had been closed by sutures. He was not aware whether sutures had been used in any case, but it had struck him that the escape of blood, or of the secretions from the uterine cavity into the peritoneal cavity, might be one cause of the mortality after Cæsarean section; and if so, that sutures might be useful. It was evident that the ordinary interrupted sutures could not be used, because they would have to be left in the spots where they were applied; but it would be easy to use the uninterrupted suture so that it might be withdrawn through the uterine cavity and vagina. It would only be necessary to leave both ends long enough, and not tie any knot. There could be no difficulty in doing this, if it were thought desirable; and it might possibly prove to be a means of lessening the mortality after the Cæsarean section.

Dr. GREENHALGH said that four cases of Cæsarean section had occurred in his own practice, besides which he had witnessed three cases in the practice of others. He spoke, therefore, from some experience of this formidable operation. In two of his own patients, who had arrived at the full period of pregnancy, it was necessitated by extreme distortion of the pelvis: in the one resulting from mollities ossium, who survived the operation three weeks, and then died from rupture of the transverse colon; in the other from rickets, who lived only four days. In both cases the children were born alive, and continued to live. In all the cases the uteri contracted shortly after the removal of their contents, more rapidly in those where the incision was made in the body, and less so in one case where the opening was effected in the neck of the uterus, on which account Dr. Greenhalgh did not approve of Mr. S. Wells' suggestion of bringing the cut edges together by sutures. He (Dr. Greenhalgh) regretted that in more than one case the operation was not undertaken until much valuable time had been lost, and until after great and ineffectual attempts had been made to deliver, which placed the patients in a bad condition for any operation, and more especially for the one under consideration. He attributed our great want of success, as compared with our continental brethren, to a want of attention to these less points. He emphatically expressed his opinion that no practitioner was justified in performing this operation with a view of saving the child where delivery could be safely effected by craniotomy. Still he considered that if any patient, who had had one or more children destroyed by craniotomy, desired from conscientious motives, after having had all the difficulties and dangers to herself and child from this operation placed before her by several eminent accoucheurs, to risk this operation, with a view of saving her child, as in one of Dr. Greenhalgh's cases, the practitioner would be fully justified in undertaking its performance.

Dr. BARNES rose to make one or two observations upon the

case referred to by Dr. Greenhalgh. In the view of the case and the principle of treatment which guided Dr. Greenhalgh he quite agreed. He was, however, more disposed at first to persevere in attempts to deliver the woman by the natural passages. He was chiefly influenced in this direction by the fact that the child was premature. Had the child been of full size the idea of so delivering could not have been entertained. But he hoped that if a leg could have been seized and brought down the body and head might have been drawn through, flattened out between the tumour and the pubic bones; and that the tumour itself, which although very firm was not osseous, might yield a little. In this they were disappointed. It was impossible to seize a leg. The course at first entertained by Dr. Greenhalgh, and ultimately adopted, was proved by the post-mortem examination to be right. The suggestion made by Mr. Spencer Wells to sew up the wound in the uterus made in the Cæsarean section Dr. Barnes did not approve. He thought accoucheurs would prefer to rely upon the contractile property of the uterus to which they were accustomed to trust in the more ordinary emergencies of labour. The blood and other matters did not escape through the wound, but found a ready outlet through the cervix and vagina.

Dr. Graily Hewitt remarked that the case brought before the Society by Dr. Swayne was one which could not fail to excite a great amount of attention. There were two aspects under which it was necessary to consider this grave question—the decision as to the performance of the Cæsarean section, and which were likely to present themselves in actual practice. The first class of cases were those in which the delivery of a live child in the natural way was impossible, and the operation was had recourse to in order to save the child. In the second class of cases, the operation was resorted to because delivery of the child was found to be impossible under any circumstances. With regard to the first class of cases, it was quite evident that the circumstance determining the decision would be the importance attached to the life of the child compared with that of the mother, respecting which it was well known that differences of opinion existed. This was a question which would probably still continue to be in some degree an open one. In respect to the second class of cases, in which the Cæsarean section was had recourse to for the reason that the fœtus could in no other way be extracted, he wished to make a few remarks. There were doubtless some cases in which the amount of distortion and narrowing was such that no operative attempts, however well directed, would succeed in bringing away the uterine contents; but he believed that some of the cases which had been thought hopeless, except by recourse to the Cæsarean section, would be found capable of being relieved by application of the cephalotribe. This instrument was as yet little if at all practically known in this country, but it appeared deserving

of a trial, and was better adapted for breaking up the structures with which we had to deal than other instruments. He quite concurred in the observations which had fallen from Dr. Greenhalgh as to the selection of the proper time for the operation of Cæsarean section. There could be no doubt that the operation was successsful in proportion as it was undertaken early; this was shown by statistics. On the continent the Cæsarean section was more frequently undertaken. Winckel had operated in thirteen cases, of which eight recovered; this showed what might be done with the operation under favorable circumstances.

Dr. Barnes would beg to intrude once more, prompted by the remarks of Dr. Hewitt concerning the cephalotribe. He had some knowledge of the application of this instrument. In the first case of Cæsarean section which he had seen, which occurred in Paris at the Clinique d'Accouchements twenty years ago, the cephalotribe had been strenuously used all night, yet the Cæsarean section had to be resorted to at last. The deformity was not greater than in this case of Dr. Swayne's, and there was more room at the sides of the aperture of the brim. In Dr. Greenhalgh's case the application of the instrument would have been simply impossible. The cephalotribe was a bulky instrument; it took up a great deal of room where there was none to spare. He did not think the cephalotribe would prove of much service in diminishing the number of cases in which it would be necessary to resort to the Cæsarean operation.

Dr. Oldham considered it important to make the incision into the uterus as low down as possible, regarding wounds towards the fundus more dangerous than those towards the cervix. His experience of severe operative midwifery rather led him to think that Cæsarean section might be performed oftener than had been generally deemed right.

Dr. Swayne stated, in answer to the question from Mr. Spencer Wells, that no sutures were used to bring the edges of the uterine incision together, and that entire dependence was placed on the contractility of the organ for effecting that purpose. It was generally considered that sutures were not to be used on account of the danger of uterine inflammation. Mr. Coe, however, regretted that he did not give ergot of rye previous to the operation. Dr. Swayne mentioned that just before the meeting his attention had been directed to the particulars of a case of Cæsarean operation which had been lately performed by Dr. Dyce, of Aberdeen. The woman operated on was a dwarf, and the case was in all respects similar to his own, except that the pelvis was slightly larger. In Dr. Dyce's case unsuccessful attempts had been made to extract the child before the Cæsarean section was resorted to. Dr. Swayne said that this case justified the course he had taken in at once advising the Cæsarean section, without making any previous attempt to deliver by craniotomy.

THE GALACTAGOGUE PROPERTIES OF FARADISATION, WITH EIGHT CASES.

By Thomas Skinner, M.D., Liverpool;

OBSTETRIC PHYSICIAN TO THE DISPENSARIES, AND TO THE FEMALE ORPHAN ASYLUM, LIVERPOOL.

"The influence of the nervous system on secretion has been long acknowledged. The sudden flow or arrest of various secretions through mental states, afforded ample evidence of the general fact. Lately, however, it has been shown by Ludwig, Bernard, and others, that the secretion of glands . . . . . may be increased by artificial stimulation of their nerves, both direct and reflex."—*Sharpey.*

Having mentioned the following cases to my friend Dr. Routh, who has made the subject of galactagogues one of special inquiry, he felt very much interested in them, and, at his suggestion, I have very much pleasure in submitting them to the careful consideration of my obstetric brethren. Three of the cases, in particular, are exceedingly interesting, and all of them are illustrative of the specific effect of localised galvanism in increasing the mammary secretion where it is defective or absent from atrophy of the gland, from mental emotion, from diminished nervous energy of the parts, from the effects of mammary inflammation and abscess, or where it has been inadvertently stopped by the administration of certain medicines.

Case 1.—Early in August, 1861, I was consulted by a lady, aged about 36, on account of vaginal irritation and other morbid symptoms, evidently resulting from anæmia. The lady had been lately confined of her fifth child under the care of an experienced accoucheur, and she was at the time suckling her infant. She was ordered moderate doses of tincture of steel thrice daily, but this medication was followed, in a few days, by a complete stoppage of the milk in both breasts. The right breast had never been used for

suckling since an attack of mammary abscess some years before, so that I was only required to re-establish the flow of milk in the left breast. At the time of the application, the patient told me that she felt a distinct sensation as of "a rush of milk to the breast." On the 16th, the patient reported, that, *although perfectly incredulous of any good result*, yet within a few hours of the Faradisation a copious supply of milk was permanently established in the left breast. I was then asked by the lady if I could do any good to the breast which had been so long useless as regards the function of lactation. I made the attempt, having little faith in the wished-for result, but I was agreeably disappointed to find that, after two brief sittings of little more than five minutes each, the right breast became as good a "milker" as its fellow. The anæmia was subsequently successfully treated by the *effervescing carbonate of iron*, and with the best effects on the mammary secretion and on the child, considering that effervescing drinks are so much dreaded by nurses and suckling mothers for their bad effects upon the infant. This patient was so much struck with the power of Faradisation in increasing the secretion of milk, the bright idea occurred to her, that "a galvanic machine would not be a bad investment for a dairyman!"

Case 2.—Mrs. —, æt. 21, was confined of her first child on April 28th, 1861. Her labour was in every respect natural, and she was seemingly both robust and healthy. Within a month of her delivery, the milk began to decrease and the child became irritable, when artificial food had to be added to the breast-milk; the milk, however, continued *steadily* to lessen more and more, until it was all but entirely stopped in about a week. In this case I could divine no cause for the diminution of the secretion. Good wholesome food, gruel, malt, and the usual stimulants, with open air exercise were resorted to, but all in vain. On the 7th October, 1861, I galvanised both breasts, using the "secondary" current, when the patient complained of a similar "rush of milk" as occurred in the previous case. I told the patient to return

next day to have the treatment repeated, but she sent me word that it was not required, as a copious supply of milk had set in shortly after leaving my house. Let me add, that the lady in question, previous to the Faradisation, looked upon the treatment as "a good joke," and was quite as incredulous as the previous patient of any good result.

Case 3.—A strong and healthy young woman, wet-nurse to a patient of my own, from a mental cause, suffered a sudden and all but total loss of breast-milk. One single application of galvanism restored the secretion within a few hours.

Cases 4, 5, and 6.—Were mothers where the supply of milk was always at a minimum, and never altogether sufficient for the child. One or two applications were followed by the desired result in all of them.

Case 7.—Mrs. H—, married, and about 23 years of age, was confined of her first child six months ago. The breast-milk has been steadily disappearing, although her appetite, digestion, and general system, are perfectly unexceptionable. At present the quantity is so small that she cannot supply her infant with anything like a meal from both breasts, which is a source of great misery to her, as she says, that she "cannot bear to hear the cries of her half-starved babe."

On the 20th December, 1862, I applied the "combined" currents to each breast separately, as more particularly described hereafter. On arriving at home, a distance of about three miles, and not until she applied her child to the breast, did she feel what she termed "the draught." A plentiful meal of milk was drawn off by the child, which went to sleep immediately thereafter, circumstances to which both the lady and her child had been strangers for a month or more.

A good supply of milk remained that night and all next day, when the secretion again became as deficient as before the Faradisation, and the infant began to fall off. Circum-

stances prevented the lady from returning to me until the 29th December, when the Faradisation was repeated, only I lengthened the duration of the process (about ten minutes to each breast). The result was most satisfactory.

On the 28th January last she called to thank and to inform me that the supply of milk was again abundant on her return home, and I had ample proof in the appearance of the breasts and their secretion, as well as in the look of the child, that the increase in quantity continues permanent.

On the 16th February I received the same favourable report.

Case 8.—M. A., æt. 23, wet nurse to a lady in the country, a patient of my own, was suddenly affected by a very great diminution in the supply of her breast milk. The milk was about nine weeks old and the infant one week. The rapid disappearance of the secretion I believe to have been caused by the monthly nurse having told the wet nurse that she observed her milk "failing," and from the fear of losing an excellent situation, the milk disappeared altogether for a whole day.

On the 6th February, 1863, *when the poor girl was actually trembling through fear of losing her place for want of breast milk,* I galvanised both breasts, by the direct and intramammary plan, by means of the "secondary" current. Like all the other seven, she felt the current most upon the upper surface of the breasts and towards the axilla, but most when the current was passed direct from the axilla to the nipple. The "rush of milk" occurred for the first time on her way home (within an hour), and it was much greater than she ever before felt. In spite of the strong emotion of fear which seemed almost to overpower her, the quantity of milk in her breasts that night was more abundant than she ever had it, and it still continues so, without having further recourse to galvanism. In this nurse the right breast has always been less developed than the left, but both are now more than sufficient for the child.[1]

[1] Since this paper was read, a case has occurred where I failed *per-*

These eight cases comprise the whole of my experience of Faradisation as a galactagogue.

Mode of application and the duration of the Faradisation.—To the uninitiated it may be well to state, that by Faradisation is meant the *localising of the galvanic current,* in contradistinction to the all but defunct method of passing the current through distant parts of the body or with the poles widely asunder. Localised galvanism is the discovery of the distinguished Duchenne, who, in honour of our illustrious countryman, Professor Faraday, called the new process "Faradisation."

The instrument which I have always used is the electro-galvanic coil machine, and I have no hesitation in saying that it is of all forms of apparatus the best for the purpose. The current obtained from chemical decomposition is the easiest regulated and applied, the most steady and constant in its action, the least painful and the most effectual. Although I have had no experience of any machine (as a galactagogue) but the one I am about to describe, nevertheless, from my general experience of most forms of electrical and galvanic apparatus, I am much inclined to believe that the magneto-electric, voltaic, and other machines for developing the galvanic current, will effect the purpose, not excepting

manently to re-establish the secretion. On three successive occasions, with intervals of about a week, I galvanised the lady; the secretion was *decidedly increased each time for about two days,* and then diminished; on the third occasion it did the same, and the patient became so disappointed, and her child so dangerously ill, that the secretion was allowed to disappear altogether. I think it proper to add that this patient was young and enormously plethoric; that it was her second child—her first was premature, and died shortly after birth. The second child, now alive, was covered with a syphilitic eruption which showed itself three days after birth. The mother is free from the disease, but on making inquiry I find that the father has laboured under syphilitic sores of the tongue for the last eight years; he is now under treatment, and almost well. I did not *persevere* with this case, simply because the child was dying from want of breast milk. A wet nurse was obtained, and the child was quite well in three weeks. It has remained so ever since, and is now six months old. Born April 10th, 1863. (Liverpool; November 5th, 1863.)

Pulvermacher's portable and very convenient chain battery of 60 or 120 elements excited by vinegar.

The coil machine which I employ has three currents, namely, the primary, the secondary or induced, and a current composed of the primary and secondary, which I call the combined currents. The instrument is a very powerful one, the battery being composed of from three to six of Smee's cells, and yet it may be made to administer the galvanic stimulus to an infant. It was made to order by Messrs. Horne and Thornthwaite, of Newgate Street, London, and it is impossible to speak too highly of it in every particular. From the above description it will be evident that the machine is the very reverse of portable.

The *modus operandi* which I have adopted in applying Faradisation in the above cases is as follows:

1. *Direct.*—Both poles must terminate in a cylinder into which is inserted a piece of sponge well moistened with tepid water. The positive pole is to be pressed deep into the axilla, whilst the negative is lightly applied to the nipple and the areola; the current should never be stronger than what is pleasant or agreeable to the patient's feelings. Sometimes the nipple is so sensitive that the current can hardly be made too mild. The poles are kept steadily in this position for about two or three minutes, not more.

2. *Intramammary.*—The two poles are then to be pressed into, or, as it were, imbedded in the mamma on each side of the nipple, and to be raised and reimbedded, observing that both poles are raised and reimbedded together. This is to be done all round the nipple and all over the breast, particularly on the upper surface, so as to stimulate, not only the gland, but also the descending superficial branches of the cervical plexus, the thoracic, and the cutaneous branches of the intercostals supplying the gland and its integument. This last part of the process may occupy from two to three minutes (not more), the first sitting. The same is to be done to the other breast, and repeated daily until the secretion is properly established. Hitherto I

have never found these means fail to restore the secretion in healthy subjects, in from one to two sittings.

It is well to remember that the Faradisation is not to be applied without intermission until the milk appears in the breasts. The milk we know requires to be *manufactured* from the blood under the direction of a sufficient supply of nervous energy; some time must therefore be allowed to elapse before the result of the Faradisation can be determined. With regard to Case No. 1, I thought that I had failed to restore the secretion, until the next visit of my patient revealed to me the error in my conclusion.

I think it right to remark that I have not tried the effect of the *primary* current alone in any case, but only the secondary and combined currents, both of which seemed to me to be of equal value. I am inclined to believe, however, that the primary current machines will effect the purpose, though perhaps not so speedily or effectually as machines with a secondary or combined current, because, Duchenne has shown that the primary current chiefly stimulates the *motor*, while the secondary affects most powerfully the *sensory* nerves—both are likely, however, directly or reflexly, to stimulate the *ganglionic*, the system regulating secretion.

Remarks.—It may be objected to these cases that the *post* may have been mistaken for the *propter hoc*, and that Faradisation had nothing to do with the results; but the fact that none of the patients believed in the agent, that a few of them laughed at it, that one of them was in *positive dread* of losing her situation through loss of her breast milk, that no other means beyond wholesome diet, exercise in the fresh air, and hygiene, were made use of at the same time with the Faradisation, aud finally, the perfect success obtained in establishing a permanent and sufficient supply of breast milk in all of the cases, leaves little doubt in my own mind that the happy results were the direct effect of the Faradisation. Further, let me observe that in Case No. 1, the right breast, which had *lain dormant for years* (the lady having suckled an infant in the interval on the left breast

only) was recalled into active service by two sittings of about five minutes each. In No. 2, where no cause for the *steady* diminution of the milk was observable, and where all the usual means by local heat, friction, warm diluents, stimulants, and starchy food, &c., were tried in vain for a week, yet, immediately after a single sitting, not exceeding ten minutes for both breasts, the secretion was restored in full force as before. The same remarks apply more or less to No. 7. Had the Faradisation failed in Cases No. 2 and 7, a wet nurse was the only alternative.

It has been told me that milk secreted under the influence of the stimulus of the galvanic current is not, or cannot be, healthy milk. Now galvanism, unlike drugs, adds no foreign ingredient to the secretion, it takes nothing from it, nor can it alter it physically, chemically, or vitally, except as regards quantity.

As well might we talk of it altering the lachrymal, salivary or any other secretion from a healthy gland and system, which it will infallibly increase if carefully and properly applied. *Galvanism seems only to resuscitate the vis à tergo, nature supplies and does all the rest.* But any fear of Faradisation rendering the milk unhealthy or deleterious is entirely set aside by the cases I have narrated—"the proof of the pudding being the eating of it," it will be granted that the proof of the healthiness of the milk must lie in the digestion and assimilation of it; and so far as my experience goes, I found the milk secreted under the influence of galvanism to agree admirably with all the children, the same as if galvanism had never been had recourse to. A medical friend has objected to Faradisation as a galactagogue because he cannot see how a *permanent* supply of breast milk can be the result of one or two applications of galvanism. Now, on this point, the facts which I have stated must speak for themselves, and if my friend or those who are inclined to think like him, cannot or will not accept my statements as facts, then they had better make fresh observations for themselves.

Sources of Fallacy.—So far as sources of fallacy are concerned, I have no doubt there are many, and as there is one which I have already met with, I shall allude to it by narrating the following case:—A married woman, a wet nurse to a patient of my own, before she was a week in service wished to resign her situation, because she said she had very little or no milk for the child. My patient informed me of the state of matters, and I told her that there was nothing for it but galvanism. The woman strongly objected, but at last gave her consent. I applied the galvanism *secundum artem*, but next day the nurse stoutly declared that she had no milk, and that she could not "*honestly*" stay. In presence of the lady I examined the breasts, and I showed her that they were actually overflowing; and it is my firm conviction that the breasts had never been otherwise. The nurse was most probably suffering from nostalgia, and wanted to go home to her husband and child, whither she ultimately went, and I understand that she has since then suckled the latter the usual time. This source of fallacy cannot be too earnestly borne in mind.

In conclusion, I may state that I was not aware that Faradisation or galvanism had previously been used with success to establish, restore, or increase the secretion of milk. I now find that Dr. Althaus, in his admirable treatise on 'Medical Electricity,' refers to such cases as having been observed by MM. Aubert and Becquerel. (Althaus, 1859, p. 302.)

Considering the great and sometimes insuperable difficulties attending the management of such cases in practice, I think that we cannot too highly appreciate the value of any safe means likely to prove successful; and although the results of the practice in my hands may seem rather flattering, I feel confident that the same successful results will attend the well-directed efforts of others.

MEDICAL HISTORY OF WOMAN IN SOUTHERN INDIA.

By John Shortt, M.D., Chingleput, Madras.

Believing that an article of some interest may be written on the above subject, I purpose here detailing the ceremonies performed by the four principal castes of Southern India at different periods of woman's life; viz., *Brahmins*, *Hindoos* or *Malabars*, *Mahomedans*, and *Pariahs*; and will give under each head the mode of treatment and the ceremonies observed by each, from the period of menstruation to that of childbed, with a few instances to illustrate the kind of obstetrical practice carried out in this country.

The age of puberty varies much, depending on constitutional peculiarity, mode of life, &c. The most usual age is between eleven and twelve, next in order follow the thirteenth, fourteenth, and fifteenth years, very few exceeding the latter; although there are instances in which menstruation has occurred much earlier and later in life, but these are quite exceptional.

The earliest cases that have come under my own observation were between the tenth and eleventh years, and the latest at twenty. As a rule, Brahmin and other high caste girls attain maturity much earlier than those of low caste, more particularly Brahmins. The premonitory symptoms are the same as elsewhere, namely, pains in the back and loins, accompanied by headache, &c. The earliest age at which girls in India are betrothed is at six months. From that time to the age of puberty marriage may take place.

Brahmins are very anxious to marry their girls early. An uncle, paternal or maternal, may marry his niece. The girl lives with her parents till she attains maturity, when she is taken to her husband's house.

Brahmins.

When a girl of this caste menstruates for the first time, she should be seen by a married woman, whose husband is living, and be found dressed in a white or red cloth; other colours, particularly black, being considered very unfortunate. As soon as her condition is ascertained, she is fed with a pint of milk and a few plantains, and is confined in a separate apartment with some girls of her own age, but who have not menstruated, as companions, and they are fed on cakes, sweetmeats, &c., for the three days they keep her company. Every evening her female friends and neighbours assemble and sing some traditional songs, clapping their hands, &c. They are entertained with betel and fruit, and their hands and faces smeared with turmeric, after which they retire.

On the third evening the male and female friends are invited to eat with the girl's parents, the males and females having their food served up separately.

During the preceding three days the girl has been unwashed; on the fourth morning she has a warm bath, and if her betrothed husband be in the town, he is sent for and sits with her, while married women smear them with sweet oil,[1] after which they are bathed separately, and should the day not be considered propitious, a ceremony termed in Tamil "*Nava keraka shauthee onussu,*" or worship of the nine planets, is thus carried out.

Nine different kinds of grain, about half a pound of each, are placed separately, and a new earthen chatty, covered with a net of white thread, is placed on the grains, and in its mouth a bunch of mango leaves, on which a covenant is placed. Nine Brahmins sit around this, and the priest offers up some "muntras"[2] which are repeated nine times, when the grain is divided between the Brahmins, and a piece of new cloth given to each. The relatives and friends of the girl meet and partake of food together. On the

[1] Gingalee oil. [2] Prayers.

evening of the same day, the girl and her husband sit under a pendall[1] of green leaves previously erected in front of the house; some unmeaning ceremonies are observed, and should there be no particular reason for deferring it, the marriage which took place during childhood is consummated; and the parents of the girl present her husband with a complete set of brass household utensils, men's and women's garments; and jewels of silver and gold, according to the wealth of the parties, are placed on the bride.

The cloth, the "*raviki*" or jacket, the glass and comb she used during menstruation, are given to the washerman, with half a rupee.

Astrology is consulted on these occasions, as there are lucky and unlucky days on which this may take place, and there are several stars under which, if a girl happens to menstruate for the first time, her husband is not permitted to see her for three, six, or twelve months, at the expiration of which time only, the marital rates can be consummated. If a girl does not marry before menstruation, she is considered a misfortune to the family, and is turned out of house and caste.

During the time that a woman of caste menstruates she is considered unclean, and not allowed to remain in the house, but takes up her abode in the outer verandah facing the street, where she may be seen with her tota or jamboo.[2]

On the third month after a woman conceives, her relations are invited, a good and propitious day having been previously ascertained from the astrologer. The woman is adorned with flowers and jewels, and great rejoicings are made; this is repeated on the fifth month, when her relations are fed, and on the seventh, eighth, or ninth month the ceremony of "*Seeminithum*" or second marriage is performed, when the husband and wife sit together, and the female friends and relatives assemble to perform certain ceremonies to blight the "*evil eye*," which ceremony they call "*Arati*."[3]

[1] A kind of booth made of sticks, and decorated with green leaves, &c.

[2] A small brass pot for containing water.

[3] *Vide* page 109 for explanations.

When the woman is taken with labour pains her relations and intimate female friends come in and crowd around the sufferer, interfering with the ventilation, which is already limited. She is directed to relieve herself by walking about, and the midwife is sent for, although usually an experienced old woman of the family acts as such. She rubs her with oil and bathes her back, loins, and lower extremities in warm water; if the pains are false, the woman may partake of food, but after the commencement of labour nothing is given. She is made to sit with her legs extended, and her back supported by a woman tilting behind, whilst the nurse shampoos her back and loins, and her friends keep up a continual noise by talking.

Prior to the rupture of the membranes the nurse places a bag filled with ashes under the perinæum as a support, and to prevent her clothes being stained.

The pelvis and abdomen are well rubbed with lamp-oil,[1] and shaken several times to promote speedy delivery. The membranes are not ruptured; this is left to nature without regard to time. When the head protrudes, the nurse supports it with her hands, and directs the woman to lie on her back. After the birth of the child one end of the patient's cloth is tied as a binder round the abdomen and pelvis.

Should the placenta not be expelled, they direct the woman to chew a lock of her hair, which induces sickness and thereby brings on uterine action; if this is not successful, they draw on the placenta by the funis to detach it from the uterus. The soiled clothes are now removed, and clean ones substituted.

The child is placed on paddy, varying in quantity according to circumstances (usually about six pounds). A piece of rag is tied on the funis about four inches from the umbilicus; the cord is divided on the placental side with a corn sickle, and the cut end covered with burnt rags, or black paper, or with a paste made of ashes and water. The paddy, with two and a half annas, are given to the nurse,

[1] Ol. Ricini (inermis).

who also receives oil and betel nut every morning until the twelfth day, when two pounds of rice, half a pound of dholl,[1] chillies,[2] curry stuffs,[3] an old cloth, and a rupee are given her. She is supplied with food during the time of her attendance by some. The cloth the woman wore during labour is given to the washerman.

For the first three days after delivery, a quarter palam[4] of assafœtida fried in a small quantity of oil is given to the lying-in woman to preserve the heat of the body, and to act on the bowels. No food or water is given until the fourth day, but if the patient complains of great thirst, a decoction composed of the following ingredients is administered: half a palam dry ginger, quarter of a palam turmeric, and half a pound of Bishop's weed, and are beaten up in half a gallon of water, and boiled until the water is reduced to a pint. When necessary, the assafœtida is followed by six cloves of clean garlic fried in an ounce of margasa[5] oil; this is again followed by three pinches of brickdust, half a palam of turmeric, and half a palam of neem leaf beaten up with water in a mass, made into three boluses, and given to keep up the lochia. On the second day, one palam of Bishop's weed seed powdered and one palam of palm sugar are mixed and given early in the morning, followed by two palams of *Kayam* powder, composed of the ingredients noted in the appendix (page 120), separately fried in an earthen vessel, and well pounded together in a mortar with one pound of palm sugar. On the third day, the same quantity of the kayam powder and three cloves of clean garlic are beaten with a little palm sugar made into a bolus, and given to the patient, who is now washed as far as the loins with tepid water, and on the fourth day is placed on the following diet: boiled rice, half a pound; *Bergera Königii* (cariapilly leaves),

[1] Pea of the Cystus cajunus.
[2] Capsicum arnium.
[3] Condiments.
[4] Equivalent to 1⅓ oz. apothecary's weight.
[5] Neem or Melia Azadirachta.
[6] A Tamil word meaning medicine prepared for a woman in childbed.

half a palam; black pepper, quarter of a palam; cammin seed, one eighth of a palam; chillies, one quarter of a palam; and salt, one eighth of a palam. These ingredients are fried, powdered, and mixed with the rice. Water warmed by the immersion of heated iron is given as a drink. On the fifth day a small quantity of tamarind[1] previously burnt in the fire is mixed with the curry, and this diet and the above quantity of the kayam powder are continued until the ninth day, when the patient is rubbed with heated oil, and bathed in warm water in which mango,[2] guana,[3] orange, and neem leaves have been boiled, at the rate of two pounds to a gallon of water. On the eleventh day, the ceremony of purification takes place. The house and the persons and clothes of all its inhabitants are washed, and the house sprinkled with cowdung and water. The soiled clothes of the woman are also sent to be washed.

The *Purohita*[4] is now sent for, and he causes the woman to sit by the side of her husband with the child in her arms; sacrifices are offered to *Ganesa* their household deity, and consecrated water is sprinkled over the husband and wife, and subsequently over the whole house, which with its inhabitants is now considered clean. The lying-in woman alone is not yet purified, and for the space of a month after her confinement is kept apart, and not allowed to touch the household furniture and utensils until the expiration of the said time, when she is allowed to resume her usual avocations.

Treatment of the newborn child.

Immediately after the funis is cut the child is washed in tepid water, and until the third day is fed on boiled honey, as until that time the mother is not allowed to suckle it; and if the external parts are cold, five drops of the milk

[1] Fruit of the Tamarindus indica.

[2] Mangafera indica.

[3] Piedium pomiferum.

[4] A Brahmin Astrologer, priest, and master of the ceremonies.

hedge (*Euphorbia Tirucalli*) are given it. On the third day it is rubbed all over with sweet oil; bathed in warm water and half a pie[1] weight of garlic; one quarter pie weight of black pepper, heated in a kin weight of castor oil, is given, and the dose is continued every second day. Some give castor oil night and morning for the first, once a day for the second, and every other day for the third month. From the third day the mother is allowed to suckle her child; if she is not able to do so, it is brought up on goats', cows', or asses' milk.

There are no particular rules about lactation, but it is considered very prejudicial to the infant for the mother to suckle it during her next pregnancy, but this is not much attended to. The child receives its name on the twelfth day after birth. The parents sit down, the mother holding the child in her arms, while the assembled Brahmins stand around them. Some uncooked rice is now spread on the ground, on which the father writes the date of birth, the planet under which the child was born, and the name that he intends to give it; the *Purohita* offers up some prayers, the father calls the child thrice by its name, and the Brahmins are fed and presented with betel, &c., which terminates the ceremony. At six months the child receives solid food, when the ceremony called "*Arati*" is performed. It consists of burning a piece of camphor on a brass plate, and moving it in a circle around the parties; some substitute turmeric and lime water which becomes red when mixed for the camphor. This ceremony is performed to blight the "*evil eye.*"

The shaving of the child's head, piercing its ears to receive jewels, &c., and investing it with the sacred card, are all performed with numerous ceremonies.

If a first born child dies at birth or is stillborn, it is usual to place the body in a chatty or earthen vessel, and bury it in the house, and after three months have elapsed it is buried elsewhere, as the skulls, finger nails, &c., are in great requi-

[1] A pie is equal to thirty-four grains.

sition by magicians to perform their charms. Children are never burned.

Widows.

Early on the morning of the tenth day after the death of her husband, the Brahmin widow is bathed and adorned with jewels and flowers; her relatives and friends assemble round and lament with her. After some time thus spent she is conducted to the nearest tank by both male and female relatives, where the Purohita Brahmin offers up prayers; some rice is cooked and given to the widow, who again laments with her friends; after which all the women except the bereaved wife and another widow, old and barren, bathe and return to their houses.

The marriage symbol or "*Thallu*" is cut off the widow's neck from behind by the old woman who remains. The widow after divesting herself of her jewels is again bathed and her head shaved, and after being bathed a third time is made to sit alone. If she has a son, he brings her a white or red cloth (black being prohibited), and puts it around her neck. Her father and mother then come, and each put a cloth around her, but she must wear the one given her by her son. She is now conveyed home in a cart. The male relatives continue at the tank, and if the deceased has left a son, various unmeaning ceremonies are performed, and alms given to Brahmins in the shape of money, food, or clothes, benches, wooden clogs, &c., according to the means of the giver. This is considered an important ceremony, and large sums of money are expended on such occasions. If poor, they will not only spend all they possess, but borrow to make the ceremony as imposing as possible.

Should the widow be a virgin and not have attained puberty, she is allowed all the privileges of a wife until menstruation occurs; and on the third or fourth day after its appearance, the marriage symbol is removed. As described above, the widow is not allowed the use of turmeric,[1]

[1] Curcuma longa.

finger or toe rings, armlets, bracelets or anklets, but may wear other ornaments, and her jacket if she pleases, until she attains her twenty-fifth year, when, whether she likes it or not, her head is shaved, she is prohibited the use of ornaments, of her jacket, &c.

Should the widow be "*enceinte,*" this ceremony is deferred until one year after delivery. The cloth and jacket she wore whilst being shaved is given to the barber, with a quarter or half a rupee.

A subdivision of Hindoos called "*Coomittees*" exactly copy the Brahmins in their widowhood ceremonies.

Malabars.

When a girl of this caste attains the age at which she is likely to menstruate, she is not allowed to wear any but a white cloth, as, if she happens to be dressed in a coloured one, it is considered very unfortunate, while white is a sign of long life and happiness both to herself and husband.

When she first menstruates she is placed in a separate apartment, and some sweet oil mixed with the yolks of two or three eggs and sugar are given her. This is continued for nine days, during which time her diet consists of cakes and "*sweetmeats.*"[1] She is bathed every day, dressed in clean clothes, and adorned with jewels, flowers, &c.

The day on which menstruation takes place should be a propitious one, and under a fortunate planet; to ascertain this, astrologers are consulted. Sometimes a good day is fixed on which the girl is declared to have menstruated, before such is the case. In some subdivisions of this, as well as in other and lower castes, every means are resorted to to bring on the menses before the natural time. The juice of the green leaves of the bamboo,[2] pepper, assafœtida, and other spices are administered, and lascivious stories related to excite the system. This is done that the marriage

[1] Preparations of flour, sugar, and melted butter termed ghee, or with gingalee oil.

[2] Bambusa arundinacea.

may be consummated early, and the girl taken to her husband's house.

The management of labour is the same as among the Brahmins, except that the patient is allowed to eat on the third instead of on the fourth day, and in the course of the second day, five palams of kayam powder are given, and a quarter of a palam every other day until the ninth day.

The child is not placed on paddy[1] when the funis is cut, as amongst the Brahmins. The rich give the midwife her meals every day; the poor only on the third, fifth, seventh, and tenth days, when she receives rice, one ounce of sweet oil, curry stuffs, and dholl; on the tenth day she is dismissed with her hire, which varies according to the circumstances of the family to three and a half rupees and a cloth. The washerman receives the same amount for lending the woman a change of cloth every other day.

Widows.

On the fifteenth night after the husband's death the relatives assemble, and the widow is bathed and adorned with jewels by her female relatives, who weep with her until 4 a.m., when the marriage string is cut as among the Brahmins; she is then bathed, and sits in a corner where her children first come to her, these are soon followed by her relations, who put a common red cloth around her neck. At daylight the male relatives go and bathe in a tank and perform the usual ceremonies in the name of the deceased through a Brahmin priest, and the widow's son, should she have one. If she has no son, natural or adopted, through her cousins. These ceremonies differ but little from the Brahmin; a Brahmin priest performs the usual rites, and alms are given to Brahmins.

Should widowhood occur prior to menstruation the marriage symbol is at once removed; but the widow is allowed to wear jewellery, &c., until menstruation appears.

[1] Unhusked grain of the oriza sativa.

Mahomedans.

On its being ascertained that a girl has menstruated for the first time, she is placed alone in a retired apartment, and about ten grains of myrrh are given her three times that day, the two following days it is given her twice a day. The diet consists of rice with sugar and ghee, and cakes of benjamin[1] or rice cooked with fenugreek seeds,[2] and dry cocoa-nut kernels. On the fourth day chicken mulligatawny and rice are given; and on the sixth day, the friends of the girl assemble to see her bathed in cold water, when the following ingredients are placed in a new earthen chattie: two cashew nuts,[3] two folds of betel,[4] one common gall seed,[5] five of a smaller kind,[6] six betel nuts,[7] and a small quantity of scent made of the roots of certain grasses,[8] the mouth is tied over with a piece of red muslin, and the chattie filled with water poured through the muslin by five young married women, each of whom throws the water from the chattie on the girl's head twice. The vessel is refilled as soon as emptied. After this the girl is dressed in new clothes, and during that day and night music and singing are carried on in the house, and friends and relatives entertained.

When a woman becomes pregnant for the first time, on the seventh month she is taken to a garden where a booth has been erected for the occasion, kept there for two or three days, and friends entertained with music and dancing.

When taken with pains all female friends assemble, the midwife is sent for, and on the birth of the child, all the relations present place two, four, eight annas, or a rupee,

[1] Resin of the Styrax Benzoin.
[2] Trigonella Fænum Græcum.
[3] Fruit of the Anacardium Occidentale.
[4] Betel piper leaves.
[5] Terminalia chebula.
[6] The young fruit of the above.
[7] Areca catechu.
[8] Andropogoii citratum, martini, and muricatum.

according to their means, on its navel as an offering, and the navel string is divided by the midwife.

The placenta is put in an earthen chattie with a fold of betel leaves, a marking nut,[1] a piece of saffron,[2] and an iron nail.

The chattie is buried in the compound under the eaves of the house, or should there be a spout from the roof under it.

When the mother and child have been wrapped in clean clothes, they are removed to a close room, to avoid draughts. The cazec is sent for, and he blows into the child's ear the "*Muezzan*" or summons to prayers; after which some good breast milk is drawn from among the neighbours and friends assembled, and given to the child, who for three days receives the juice of the black betel leaf,[3] and the sap of the "*Euphorbia Tirucalli*" is given two or three times daily; on the third day it is suckled by the mother. The diet of the mother on the second day consists of bread, and an infusion of cumin seeds.[4] On the fifth day a religious ceremony is performed, and the child receives its name. If a girl sugar-candy, and if a boy "sweetmeats," with betel, &c., are distributed to the friends. The midwife receives rations of rice, dhall, condiments, &c., and her hire, according to the means of the people. The washerman receives the same rations and money.

On the twelfth, twentieth, and thirtieth days, the mother and child are bathed, and friends entertained; on the fortieth day presents of clothing are exchanged between the friends of the husband and wife.

Widows.

Mussulmen widows in Southern India are not allowed to see any males, not even their nearest relatives, for forty

[1] Anacardium semicarpus.
[2] Curcuma longa.
[3] Black variety of the betel piper.
[4] Cuminum cyminum.

days after the husband's death. At the end of that time, the widow is dressed in new clothes by her relations and friends, and a religious ceremony termed "*Fatiha*" is carried out, when feasting, &c., takes place, and the widow is at liberty to marry again if she pleases.

But should she be "*enceinte*," the "*Fatiha*" is carried out at the usual time, but the widow is not allowed to adorn herself until forty days after childbirth.

Pariahs.

In this and other low castes, menstruation usually shows itself between twelve and sixteen years of age. The appearance of the menses should first be ascertained by a young woman, if by an old one it is considered a bad sign. The girl is immediately bathed, and placed under a temporary booth made of cocoa-nut and other green leaves. She is not allowed to be seen during the time that she is ill by a male, and is bathed every day, and two or three raw eggs, with an equal quantity of sweet oil, are given to her.

The diet consists of rice cakes, &c.; on the seventh day feasting takes place among the relations and friends.

The treatment during and after delivery is much the same as elsewhere described. The ceremonies on widowhood are slightly modified from those in use among the Brahmins, and the rites are performed by a Pandaram.[1]

Religious and other ceremonies are not much observed among the Pariahs.

Midwives.

The barber-women are the usual professional midwives, but this office is not confined exclusively to them, but is performed by all low castes. Generally, however, some old woman in the family affords the necessary assistance. Their

[1] A devotee of the Siva sect.

treatment is in most instances the same as that above described; some, however, place the patient in different positions. By some she is made to sit with her legs extended, leaning her chest on pillows, and with her hands on the ground; others keep the woman standing during the first stage of labour, urging her to exert her force on a rope attached to the ceiling; and kneeling when the head presents itself. In some cases the nurse sits on the ground with her knees raised, and makes the woman sit on her ankles, with her legs extended, and embracing the legs of the nurse, who at the same time uses pressure about the loins, and sides of the abdomen and pelvis. Much rude force is used by them. On one occasion when called to see a patient, I found two women seated, one on each side, pulling at a cotton rope encircled round the unfortunate woman's abdomen, "to prevent," as they said, "the child going up." In another instance, a case of premature labour, the uterus was inverted from the force used to draw away the placenta.

A native midwife will pass her hand up the uterus, and pulls at anything she can get hold of; thus the arms are frequently torn away from the fœtus, or the shoulder becomes so impacted in the pelvic cavity that it requires much time and care to dislodge it.

In tedious or unnatural labours, they are totally at a loss, and unable to render any assistance; but some will try to extract the child from the vaginal orifice by dragging and pushing their forefinger in the axilla and pulling. If this fails, they leave it to nature as a hopeless case, or apply for European treatment. Where the fœtal head is in the vaginal orifice, and the pains have no effect, or have ceased, no remedies are resorted to. They place great faith in charms and incantations, and in cases where all else has failed, these are employed. A few mystic words whispered into some water which is given internally, or sprinkled over the abdomen and passages; or incantations addressed to a deity, and a few neem[1] leaf twigs shaken over some oil,

[1] Melia Azadirnachta.

which is given internally, and rubbed over the abdomen and passages, are expected to work wonders. Among Musselmen great faith is placed in a few words from the Koran written on a piece of paper, and chewed with some water. By some persons, a copper bangle containing a vegetable root is worn as an amulet, and is supposed to ensure speedy delivery. They also assert that a plant exists (the name of which they will not disclose), which, when a woman is suffering from protracted labour, they root up, uttering at the same time some magical words, upon which the patient is instantly delivered.

In complications during convalescence, which require the administration of active remedies, a native doctor is applied to.

After childbirth, they prescribe the most stimulant remedies, to keep cold out of the system, of which they are in great dread, as they fear it will give them tetanus. Assafœtida and brandy are household remedies, and are freely administered. As soon as a woman is confined, they come begging for brandy. On one occasion I called in to see a Mussulman woman I had relieved of a cross birth a couple of hours before. I found her up, and sitting over a vessel containing country *arrack*. On asking her what she was about, she replied "that she was steaming herself to keep out cold." On another occasion, I was called to see the wife of an officer's servant who was said to be raving. I found the patient as drunk as she could be, for a bottle of brandy had been administered to her in the course of six hours, as her husband said to "keep off a fever she had taken from cold." She was a young girl of sixteen, and that was her first child; she was quite well a couple of days after.

Cloths steeped in brandy or other spirits are frequently introduced into the uterus and passages, and if the lochial discharge is not free, the milk of the *Euphorbia Tirucalli*, or of the *Calotropis Gigantea*, both powerful irritants, is used in the same manner.

As may be supposed, almost every disease of the uterus and passages is met with. I have had several cases of

violent inflammation from the practice of introducing stimulants into the uterus.

Although the natives have so little obstetrical knowledge, they are so tenacious of their caste and customs, and have such an unconquerable objection to manual vaginal examinations, that it is very seldom they apply for European aid, and then only in cases where they have completely failed. It requires ocular demonstration to believe the state in which the unfortunate creatures are brought in for relief. In every instance, the patient has been in labour three or four days, the child is usually dead, and the mother so exhausted that it is necessary to administer nourishment and stimulants largely before any relief can be given. The labia, pudenda, &c., enormously swollen; the passages hot and dry; the head firmly impacted in the pelvic cavity; the uterus paralysed; pulse upwards of 130; bowels costive for four or five days; the bladder distended, and in some cases extending up to the umbilicus, may serve as examples of the conditions under which they apply. Extrusion of the arms, of the arms and funis, or of the funis itself, is no uncommon thing. In most cases, by timely application, both mother and child might have been saved; however, it is gratifying to state, that even under these aggravated circumstances the majority of the mothers are saved if they are allowed to remain a few days in hospital after confinement.

They have a great objection to take females in labour to a public hospital, and the only object they have in view is that the patient should be delivered; as soon as this is effected, they wish to carry her away again. It is very difficult to prevent their doing this; and many instances have occurred in which had the patients been left in hospital a few days, they would probably have recovered, but their lives have been sacrificed to ignorance and superstition. Should the patient die in hospital, they cannot, by the rules of caste, take the body home again.

It is almost impossible to attend the poor in their own huts, they are so small, and have no opening but a door three feet in height and two in width. They have no

furniture; one has to squat on the ground alongside of the patient, who lies on a mat, or on the ground, and the heat together with the want of ventilation consequent on the crowding of friends and relatives is insufferable. None but those who have had experience in midwifery practice among the natives can understand the difficulties that lie in one's way.

Yet it is pleasing to state that a change is coming over the natives, and obstetric science is becoming more and more appreciated.

General Remarks.

Woman in India is the slave rather than the companion of man. Debarred by the strictest social restrictions from that education which would fit her to hold her rightful position as the helpmate of her husband—her will must ever bow down to that of her despotic lord and master, by whom she is regarded merely as a useful appendage, with no power allowed her to choose for herself in the various relations of life. The wife is not even permitted to eat at her husband's table, but waits on him with the servility of a slave whilst he enjoys his repast.

While yet a child she is disposed of in marriage by her parents, and it is no uncommon thing to see an infant of six months married to a man of forty or fifty years of age. Frequently before entering on her teens she becomes a wife, mother, and widow, when her situation is indeed deplorable, for not only is she prevented by caste rules from ever marrying again, but her person is rendered as unattractive as possible, and she is doomed to the performance of all the menial offices required in the family, and to a life of deprivation and hardship. This system is productive of the worst effects, leading to great immorality and crime. Criminal abortion and infanticide are common occurrences, the guilt of which they do not recognise.

At no period of her life is a woman in India ever independent. In youth she is subservient to her parents; when she attains maturity, to her husband; and at his death, to his relatives or to her sons.

Among the Malabars, girls are frequently dedicated to some god, and become attached to the temple over which he presides, which they help to support by money gained by prostitution, being at the mercy of the priests in particular and of the public in general. These are the only educated women, and they are instructed that they may be able to learn the lewd songs, sung in praise of their gods and goddesses.

Mussulmen teach their women to read, that they may study the Koran, but they are not taught to write.

It is pleasing to observe the change now coming over the country. Education is making rapid strides, girl-schools are being established in all parts of India, and I hope the day is not far distant when the women of India will share in the privileges of their more enlightened sisters of the West.

Appendix.

Ingredients used in making the Kayam Powder.

English names.	Tamil names.	Palams.
Bishop's weed seed or Sison Acumi	Omum	5
Piper longum	Thippilee	5
Piper dichotum	Mody	5
Piper nigrum	Koolaga	5
Turmeric or Cucuma longa	Munja	2
Dry ginger or Zingibus radix	Sujee	4
China root or smilax China	Parungy Pullay	3
Cubeibes or Cubeba	Val Moolagoo	3
Cumin seed	Seeragum	2
Cloves	Laban gum or Cramboo	1
Cinnamon	Karoovapatay	2
Nerium anti-dysenterium root	Vappalay	2
Cardamon seeds	Galarisie	1
Nutmeg	Satekai or Jadikai	½
Galls or Quercus infectoria	Masekai	½
Flacourtia catappracta	Salisapatry	2
Henbane seeds or Hyoscyamus niger	Chorasanie onium	2
Macardugua tomentosa	Guntie paranghie	1
Alpinia galanga	Doomparastum	2
Lesser Alpinia galanga	Chittarithay	1

These ingredients are separately parched and powdered, and then mixed together with one pound of palm sugar (sugar from the juice of the *Borassus flabelliformis*), and kept for use. It is said to be a powerful stimulant, and to keep cold from the system. It is administered in doses varying from one quarter to five palams.

May 6th, 1863.

Dr. OLDHAM, President, in the Chair.

Present—37 Fellows and 6 visitors.

The following gentlemen were elected Fellows of the Society :—Bruce Barclay, M.D., Shangai ; John W. Coward, Esq., Coroner, Christchurch, Canterbury, New Zealand ; Henry S. Johnson, M.D., Stoke-on-Trent. Elected at the April meeting :—J. B. Brierley, Esq., Staleybridge ; Edward Parsons, M.B. Lond., Samaritan Hospital ; Dr. T. M. Sumter, South Audley Street.

FIBROUS POLYPUS OF THE UTERUS.

By Graily Hewitt, M.D., &c.

Dr. Graily Hewitt laid before the Society the particulars of a case of fibrous polypus of the uterus which he had recently removed. The case was that of a patient, æt. 43, under the care of Dr. Browne, of Kew. The patient had been twice married, but had no children ; never pregnant. Two years ago she had a severe flooding, for which no cause was discovered. Since that period, she had suffered from an almost continuous drain of blood or bloody discharge, for which she, thinking it to indicate and imply the "change of life," sought no advice. Dr. Browne was recently called in on account of a severe hæmorrhage which had occurred, and he detected, on examination, the presence of a tumour. The patient was exhausted, pale, emaciated, and presented

many of the outward signs often supposed to indicate carcinomatous disease. On examination, Dr. Graily Hewitt found that there was a hard, rounded, pedunculated tumour in the vagina, the size of an egg, just outside the os uteri. The tumour was removed on April 29th; the pedicle apparently attached to the anterior wall of the uterus, and which measured three quarters of an inch in diameter, was cut across by a pair of curved scissors. No hæmorrhage followed the operation, and the patient was reported as doing well. The polypus was of the ordinary variety, nearly round, and was rather above two inches in diameter. Dr. Graily Hewitt stated that the chief interest attaching to this case, was the fact that the nature of the disease was so long unknown and unsuspected by the patient. He remarked also on the peculiar pallidity and general aspect of the patient, which very closely simulated that often observed in cases of uterine cancer; this peculiar appearance resulting in both cases from the continuous loss of blood. One of the points considered diagnostic of cancer has been the presence of a peculiar pallidity and straw colour of the skin, but he believed that loss of blood, due to cancer or polypus as the case might be, sufficed to give rise to the appearances in question.

Dr. Braxton Hicks asked if Dr. Hewitt had used a single wire or wire-rope to remove the polypus. He asked the question because the instrument with annealed steel wire-rope which he had brought before the Society some time since, he had found most useful, indeed he had used it in every case of polypus, and had only failed in one enormous one. The only point to attend to was using a rope of a size according to the work it had to do. He felt sure that the instrument would have succeeded in the case now before them.

The President stated that he could bear testimony to the value of Dr. Hicks' instrument for the removal of uterine polypi.

Dr. Rogers inquired whether any attacks of pain, bearing down or expulsive efforts like those of a miscarriage had been observed, as such pains almost always accompanied the detrusion of uterine polypi. In several of the cases which had come under his care the patients were thought to be suffering from miscarriage, and in one unmarried female from whom he had removed a polypus as large as two fists, she was told that she was pregnant, and

advised by her medical man to prepare her baby linen. In this case, Dr. Rogers had to dilate and finally cut through the cervix before he could remove it; the pedicle was cut through by the ecraseur. Dr. Rogers agreed with the author that females who had suffered from long-continued hæmorrhages due to polypi, had the appearance of labouring under cancer, but he had often seen the same pallid icteroid hue in cancer cases when there had not been hæmorrhage to produce it.

Dr. Graily Hewitt stated that pains of the character alluded to by Dr. Rogers had been observed. In answer to Dr. Hicks, he had to observe that he had found the scissors more convenient for dividing the pedicle in the case related, the pedicle being too large for the wire which he had intended to use for the purpose.

FURTHER OBSERVATIONS ON THE USE OF ANÆSTHETICS IN MIDWIFERY.

By Charles Kidd, M.D., M.R.C.S.

(Communicated by Dr. Tyler Smith.)

It is now conceded by the universal consent of experienced obstetric practitioners, that the administration of chloroform in various kinds of labour has been followed by the very best results. The feeling of hope of relief of pain, in the mind of the mother, has been observed to be most beneficial; besides which the increasing number of living children saved by version under chloroform, is most encouraging for the future. Chloroform, if we do not boast in vain, is the true "Opifer per orbem" of the profession.

The lying-in chamber is now, in many cases, saved those piteous and miserable exhibitions of purposeless pain that sometimes depress and sadden even the least impressionable bystanders. The woman in labour now (if we wish it so), is not worn out, and in tears after the termination of her pains, exhausted, and unable to suckle her child; but by means of chloroform she wakes from—what it is in reality—a refreshing sleep, and from what has been in reality a process

of reparation or saving of nerve force; she is cheered to know everything is over; she is free from exhaustion and lassitude, from the old muscular pains, soreness, shiverings, &c. Nor is the subsequent process of suckling in the slightest degree interfered with by chloroform, as once supposed and stated on insufficient data. It was conceived by Dr. Snow, that the infant born when the mother was deeply under chloroform, was somewhat less susceptible of breathing freely when released from the womb; this is just barely possible under ether, but it has never been observed under chloroform; it was stated by Huter that he had observed infinitesimal portions of chloroform in the blood of the funis; experiments on animals show this too; but then we know that there is no immediate or direct communication between the vessels of the funis and the vessels of the mother during labour, and a couple of hours get rid of all chloroform in the blood. There is no doubt a sort of feeling of accommodation or resignation to pain in a large number of women in labour, so that they do not require chloroform, but still there is another series of cases where the value of chloroform is now set beyond doubt.

As a sequel to a former communication[1] which the author had the privilege of reading before this Society on the value of anæsthetic aid in midwifery, he is desirous of bringing under its notice some additional observations on chloroform, the further result of experience.

It will be satisfactory to the Society to know that all the leading details of the former paper, with the various practical suggestions in the debate to which it gave rise, have been very highly appreciated, and very fully recognised as to their truth, in the large and wide field of practice amongst obstetricians in Germany, France, America, Australia, &c., more particularly as to the extreme value of chloroform in cases of malpresentation or contracted outlet of the pelvis requiring "turning" of the child; chloroform in some forms of puerperal convulsions; chloroform in tedious exhausting labours of women who have married late in life, and the like:

[1] 'Obst. Trans.,' vol. ii, p. 340.

—it is now generally hoped, also, that by means of chloroform the operation of craniotomy and forceps operation may become less numerous, to the great benefit and saving of life of mother and child.

The author thinks it desirable at present to bring under notice these few additional observations:

I. The result of subsequent experience as to the caution to be observed in cases of midwifery attended by severe hæmorrhage.

II. As also to direct attention to one or two new points: namely, the great value of chloroform in cases of retained placenta.

III. The usefulness of alternating the administration of ether with that of chloroform, where the pulse sinks, as in some exhausting operations like ovariotomy.

IV. He is also particularly anxious (although there seems a peculiar immunity from danger from chloroform or ether in obstetric practice, due perhaps to the active condition of the respirator, abdominal, and reflex system of nerves at the time, the subjects also being healthy) to draw attention to a new mode of resuscitation in impending death from chloroform, suggested by experiments on the lower animals, and found most serviceable in general surgery. This mode of resuscitation is a somewhat new form of electricity—the "Faradisation" current, applied not to the heart, as heretofore, but to the phrenic nerve and diaphragm.

And first, as to cases of midwifery in ordinary practice, cases of placenta prævia, or such like, attended with hæmorrhage, increasing experience tends to show that chloroform, especially if administered so as to induce very deep narcotism, has a tendency to impair the tonic contractile power of the uterus for the time being, it may be only for a few minutes, or some portion of an hour, and might not be alarming in itself, especially if combated by the use of ergot of rye (which is not contra-indicated in such cases), but there is now reason to fear that, according as the bleeding continues, absorption of the anæsthetic or endosmosis in the lung is much increased also: with the knowledge of this fact or its

probability in mind, the author thinks it desirable that additional caution as to chloroform should be observed in such cases of bleeding as before stated. This is perhaps the only class of case (except possibly in dispensary patients, where one meets occasionally troublesome midwifery complication in a woman of *intoxicated habits*) in which any undue anxiety may exist as to the propriety of administering much chloroform. A very large proportion of the fatal accidents from chloroform in the general practice of surgery, it is now found, have occurred in patients either in actual delirium tremens, or of bad intoxicated habits. In one doubtful case associated with child-birth, the dead woman was found with a quart bottle of gin under her pillow, in which she had been indulging unknown to her medical attendant!

As a "set off" to these untoward effects on one side of the use of anæsthetics, it may now be stated with certainty that these agents are in the vast mass of obstetric cases most beneficial:—chloroform removes unnecessary and often exhausting agonising pain;—chloroform renders version and such operations as removing retained placenta very much more easy; and when used with discrimination and caution, chloroform undoubtedly facilitates the recovery of the lying-in patient. Even the danger from hæmorrhage is not very great if the practitioner be furnished with such things as ergot, brandy, ammonia, &c.

It is doubtful if chloroform ever stops a labour or causes inertia; we see labours stop without chloroform at all. We should not argue from mere coincidences: "post hoc propter hoc." It seems clear that sleep, or the stupefying power of chloroform, is more marked in the early portion of a labour, before the os uteri has dilated, than subsequently, when the more active or expulsive portion of the parturient process has set in; or at any rate, that the action of chloroform is more directed to relieve the excessive pain of the former state than the latter; it is here the so-feared delay in the labour occurs.

As regards the apparent influence of chloroform of lessen-

ing the contractile power of the uterus in proportion as during labour it makes the puerperal female insensible, it is only necessary to call to mind that it is now abundantly proved, that pain of itself is a great evil—that the sense of pain is essentially seated in the brain or sensorium, on which chloroform acts so specially and almost alone, but that the effort of the uterus to empty itself is so little depending on the brain proper; that chloroform is not contra-indicated. Labour may even go on in a woman affected with complete paraplegia; labour has been known to proceed though the spinal cord was totally cut off from the brain by acephalo-cysts, or where the cervical vertebræ in the lower animals have been fractured; or in the deep coma or insensibility of puerperal convulsions, or in the insensibility of deep intoxication. All this explains that we may have spontaneous uterine or reflex action very perfect, though sensation through the brain be removed. The real function of the cerebellum is probably to originate spontaneous and involuntary action of this kind.

Thus great diversity of opinion at one time prevailed as to whether inhalation of chloroform impeded the action of the uterus in ordinary labour, or not: on one side were ranged some of the first practical men of Europe and America; and on the other equally great names; some, as Baron Dubois, preserved a strict balance or reserve in their opinion till facts had accumulated. It is now pretty clear from these facts, that like the knights of old, they gave an opinion of opposite sides of the same shield; this diversity of opinion is explained quite clearly by the manner, and *the extent*, and the period in which the chloroform is exhibited; the first effect of the inhalation too, in an exhausted patient, is to produce ordinary sleep caused by relief of pain, but soon such patient wakes up; her respiration is accelerated; the pulse made more firm, and altogether the woman is better able to undergo the remaining portion of her labour; the expulsive pains of the latter part of the labour also are less agonising.

The next division of the present communication is one to

which attention has not been previously directed in this Society, and on which the author is desirous of obtaining its guidance and experience from any further cases, namely, the great benefit of inducing quick and full anæsthesia under chloroform in hour-glass contraction of the uterus; and some, or indeed all cases of retained placenta.

In such cases, it is apparent that thus we can make good use of this very great impairment of tone of the uterus and as in version cases we are thus enabled to pass the hand into the uterus more easily, so as to detach a placenta, or part of a placenta, thereby warding off subsequent convulsions of a bad kind. This impairment of tone is very undesirable in the atonic state of the uterus in hæmorrhagic cases.

A safe and useful rule in practice can be laid down for manual extraction of the placenta. If the uterus be contracted firmly (or in cases with "hour-glass" contraction) the condition of the patient good, yet much resistance offered to passage of the hand, the administration of chloroform facilitates the removal of the placenta most essentially; but if the uterus be not contracted chloroform is scarcely required. The anæsthetic should be given to its full extent, but need not be long continued (as in other obstetric cases).

It is of course quite probable the practitioner may meet cases of retained placenta attended with great prostration; here ammonia should be given, it acts very well with chloroform; or ammonia and brandy may be joined; or there may not be necessity for chloroform as the uterus may be relaxed; the use of the "binder," or grasping the uterus, is all that is called for. In all cases, however, where there is not positive inertia of the uterus present, chloroform may be safely tried, and yet these are not the cases in midwifery where chloroform is the chief benefit.

Here a few words may be said of the relative safety or value of ether as compared to chloroform; and, reasoning a little from analogy, ether may be pronounced a somewhat less depressing anæsthetic than chloroform.

The author's experience of the depressing operation of ovariotomy, in about thirty of which cases he has administered the anæsthetic, leads him to prefer the use of ether in ovariotomy to chloroform; the patient will take one or other very well, without seeming difference; but the depressing "shock," or sinking of the nervous system, is more marked and perhaps more serious under chloroform than under ether.

Ether is dissolved in the blood, chloroform is not.

It is probable that ether does not depress the nervous system as much as chloroform—it relaxes muscular tissues (like that of the uterus) more than chloroform does, and acts better on the pulse. Ammonia and ergot seem to be the best antidotes (so to call them) to the depressing or excessive action of ether or chloroform in labours. Fanning the patient also by a common lady's fan with cold fresh air, if necessary, and sprinkling with cold water are good adjuncts. Chloroform does not accumulate in the system, as once believed. A solitary accident seventeen hours after labour, where the vagina was lacerated by instruments, quoted by Dr. Barnes, is not an accident from chloroform; nor an accident of a like kind where the woman had been of deeply intoxicated habits, and died, in fact, of delirium tremens.

The leading observations made by the author to this Society, at the latter end of the year 1860, on "Anæsthetic Aid in Midwifery," have since been more and more tested, and have proved to be true; especially as to chloroform in natural labour attended with excessive pain; the immunity or freedom of lying-in patients from chloroform accidents; chloroform in cases of twins or others requiring versional delivery, the necssity of avoiding exhaustion on the part of the patient from long-continued ineffectual "pains" in labour, as also exhaustion and irritation in some forms of puerperal convulsions, the anæmic or epileptic form of convulsions especially. Dr. Murphy has since published three instances of fatal puerperal convulsions, brought on apparently by the reflex irritation of passing the accoucheur's

hand into the uterus to remove adherent placenta; from what we now know of the efficiency of chloroform in such cases it is most probable that the administration of this agent would have prevented such convulsions. The predisposing causes of such convulsions is sometimes intense pain suffered by the woman during labour, but which nothing can lessen so satisfactorily as inhalation of well-regulated doses of this anæsthetic; it is not impossible, as observed by Van der Kolk, that in all such cases, that irritation of peripheral nerves (notably in some forms of fits from irritation of the external genitals) is reflected directly back to the *medulla oblongata*. Something like the impressions of the cells or molecules of a galvanic telegraph; this irritation then acts on other roots of nerves (by vital induction ?) lying side by side at the base of the brain, all which molecular action chloroform stops for a time. Again, some cases *before* labour are from mere pressure of the gravid uterus on the abdominal veins.

A communication by Dr. Maclintock, on the propriety of versional delivery in contracted pelvis, and the extreme value of chloroform was discussed since the present author read his paper on chloroform in 1860. All his patients, except one or two, were placed well under chloroform. Some fellows of the Society will doubtless call to mind this interesting detail of seventeen cases of obstructed labour, where mothers had previously had dead children, where craniotomy operations were deemed so orthodox and of such saving value; yet by means of chloroform and version, nine living children and seven with heart pulsation were gained for the over-joyed mothers, and craniotomy avoided. We hear of 300 such cases from Scotland, with very excellent results! and Dr. Maclintock has since directed the author's attention to 400 cases of various kinds under chloroform, and to 313 in the practice of Sinclair and Johnson, with the most gratifying results, and not a single case of accident. The small town of Copenhagen has had in one year also fifty-three cases of version under chloroform.

Of course it would not be wise to recommend the administration of chloroform indiscriminately; nor if we had reason to fear uterine inertia, disease of heart, intoxicated habits, &c., yet even these, perhaps, have been overrated as to their danger.

In a society like the present, it is not necessary to specify at any length the exceedingly bad consequences which usually follow uterine *phlebitis*. Retained placenta is probably a common cause of this, and is more common in primiparous than post primiparous patients, nor can it be denied that the source in a large majority of instances of the retention is to be found in inertia of the uterus rather than hourglass or other contraction—a state of uterine inertia together with a condition of the patient attended with exhaustion or hæmorrhage not favorable to the use of chloroform. But this contraindication to chloroform is only apparent, not real, and by careful use of stimulants chloroform may come in very well.

No doubt retained placenta is fortunately a rare complication in cases of delivery; yet in some six thousand labours Maclintock, in the Dublin Lying-in Hospital, met fifty-six of bad hæmorrhage, and twenty-eight of retained placenta.

In private practice, it need scarcely be remarked, there is something of dread amounting almost to a superstition amongst the friends of the patient, that nothing is right till the placenta has been taken away. It is every day observed in such a case, that the patient is exhausted; yet if there be not much hæmorrhage, this exhaustion will be removed by the administration of stimulants, such as ammonia and brandy, as also one or two doses of ergot of rye; if any difficulty then exists in reaching the uterus, ether or chloroform should be given, the hand again introduced when ordinary full anæsthesia shall have been induced, and then every portion of the placenta taken away. An excellent case of this kind has occurred where portions of a placenta were removed twelve hours after delivery; and the recovery of the patient was such as would have been impossible without this procedure under chloroform.

The action of chloroform on the respiratory muscles is very useful in continuing the contractions of the uterus, and is very marked as regards the abdominal walls, which do not lose their tonic muscular contraction during the deepest insensibility or abolition of voluntary power on the part of the patient. According to theory they ought to be relaxed, but M. Longet has offered the idea that they are essentially respiratory muscles, and subject to the great respiratory brain centre or bulb connected with respiration, and one of the last to be affected by the chloroform—black blood, too, is the normal stimulus of the lung, not scarlet blood, and there would be probably more danger from strumous, anæmic, hysteric or cachectic conditions, than from any the most violent half suffocated state of a puerperal patient under chloroform.

Where "sickness" and vomiting have followed for some time the use of chloroform, the author doubts if it is to be ascribed to the anæsthetic, but to latent fever, erysipelas, pyæmia, &c.; he has known excellent recoveries, as in ovariotomy, from injections of beef-tea and wine, good absorption takes place in this manner.

It is the opinion of the best practitioners that, from the relaxing effect of chloroform on the perinæum, ruptured perinæum will now be more rare than formerly. No doubt the operations for this accident of a plastic nature now attract more notice, and such injuries are the unavoidable result, very often, of labours with impacted head followed by instrumental deliveries and neglect of chloroform. If a labour be made a little slower by the exhibition of chloroform too early, it is satisfactory to know we may stop it, or that the woman then also suffers less than without chloroform; that also there is less chance of sudden delivery causing ruptured perinæum, and that the subsequent recovery of the patient is more quick and certain as the exhausting shock of long continued agony has been spared to the nervous system; it is a great mistake to begin the chloroform before the os uteri is at least dilated to the size of a florin or of a shilling.

V. Finally, as to the best mode of resuscitation in cases

of alarming syncope from chloroform; when sprinkling with cold water and other usual means have failed, the author has seen the advantage of artificial respiration and electricity along the phrenic nerve and respiratory muscles, but not as formerly applied to the heart itself. No cases of accident have occurred in midwifery, but "to be forewarned is to be forearmed." Even an acupuncture needle or pin stuck into the diaphragm may possibly save a valuable life.

As a general rule, chloroform in midwifery need not be pushed as far as deep insensibility, except in the few cases of retained placenta, versional delivery, &c., so that there is not much necessity for enlarging on the best means of resuscitation. Some very lamentable cases of entire *inversion* of the uterus from forcible dragging on the funis or the patient suddenly getting out of bed, have occurred, attended with alarming symptoms of fever, exhaustion, &c., yet here chloroform to full narcotism acted like a charm in assisting the return of the inverted uterus! The utmost confusion exists in all our standard books, copied one from the other, as to syncope, cardiac syncope, asphyxia, &c.; the accidents are not all alike—we have, in fact, apnœa and simple syncope, but neither is to be much feared in midwifery; apnœa is a new and better word for asphyxia or "cardiac syncope," its remedy is electricity to the phrenic nerve.

In the large majority of cases of such occurrences, sprinkling of cold water and fanning with a lady's fan seldom fail to restore the patient. If it should occur in hospital practice, for instance, that these and artificial respiration failed, then the needle into the respiratory muscles should not be omitted, or, better still, one of the sponges of the ordinary magnet machine over the phrenic nerve at the spot where the omohyoid muscle crosses or lies at the outside of the sternomastoid, the other pole or sponge in the seventh intercostal space, or a needle also into the skin at this point; this plan of resuscitation almost uniformly succeeds in the lower animals when everything else proves ineffectual in restoring animation.

Finally, we may say, the objections made to chloroform

in midwifery, are like those made to the modern operation of iridectomy or ovariotomy, the result too often of routine and old-fashioned prejudice. Our grandmothers had no chloroform, is the leading dogma of one school; but we say, they had also bleeding in typhus, smallpox without vaccination, and violent drastics after hernia operations, all errors of a fatal kind. They did without railroads, but we can scarcely do so. The nonconformists of medicine and general public say, we wish to spare ourselves trouble and time! It is well we should know this; committees of medical societies can do little, but rather the good sense of the profession itself as the subject is now a very wearisome one. If we can prevent convulsions in puerperal cases by chloroform; if we can lessen the number of craniotomy operations; if we can spare the poor lying-in woman hours of torture —prejudice and routine should give way to a better science; and pity for the patient becomes at once more than science (at least ought to do so); it becomes a charity, "that rejoiceth in the truth," that is both a saving of life and a professional duty!

Dr. Hall Davis.—It is scarcely admissible in the present day, when the value of chloroform in parturition is so fully acknowledged, to question in any way the propriety of a discreet resort to it in certain cases, and I am quite willing to give my support to Dr. Kidd's interesting paper, so far as I am able. I commenced its use in December, 1847, in a patient whose nervous system was much agitated, and in whom the os uteri and vagina were dry and extremely rigid; the patient was reduced to perfect calmness; the resisting tissues yielded with an abundant flow of mucus, and the birth, which promised to be long protracted, was quickly brought to a safe conclusion. Since that time, I have with the like good effects resorted to chloroform in labours on several occasions on account of rigidities of the os uteri, vagina, and perinæum. Sometimes it has prepared the patient for the use of the forceps or other modes of mechanical delivery; in a large majority of cases, however, it has superseded altogether further interference.

I have found the action of chloroform of great service in rendering possible the operation of version in cross presentations, and in some other indications for that operation. I have been called to cases where it was thought the operation of embryotomy would be inevitable, and preparation has accordingly been made for it, when, after anæsthesia, the child has been extracted easily

and alive by versional delivery, all previous efforts having been successfully resisted by the contracting uterus.

Chloroform is very useful in soothing the nervous irritability, apprehensions, restlessness, and general suffering of some parturient patients: at the same time it appears to give an uniformity, regularity, and efficiency, to pains previously of an opposite character. I have no experience of its power in puerperal convulsions, never having ventured on its use in that complication; but I think by soothing the nervous system in excited states of it, chloroform sometimes tends to prevent an accession of that disease.

With all these advantages I must, however, admit, that chloroform, in common with many other valuable remedies, has its drawbacks, although these are for the most part due to giving the vapour more deeply as in version cases, or even when not deeply throughout a long period. It is then apt, as I witnessed in two cases with Dr. Snow in the wives of professional friends, and in several other instances, to give a feeble character to the pains, and so to occasion a lingering labour. On the same principle, by lowering the muscular power of the uterus, as it undoubtedly acts in facilitating version, it leaves a tendency in the uterine fibres to relax, and permit of uterine hæmorrhage after delivery. I have met with this result too frequently to entertain a doubt as to this tendency of chloroform.

Some months ago, in the case of the wife of an old professional friend, I gave ergot in the labour three or four times in the second stage to prevent this effect, which had followed the use of chloroform in her previous labour. On this occasion hæmorrhage did not occur.

In the statistics of my work on 'Difficult Parturition,' I published a case of death after chloroform, which, however, I have not attributed to its employment, as the fatal result would most probably have occurred under such imprudence without its administration. The patient had a rigid os uteri, and had lost not an excessive amount of blood under placenta prævia of the complete kind; as the bleeding continued, I gave chloroform to relax the os uteri and admit of version, and accomplished my object without difficulty; on delivery, the hæmorrhage ceased, and the uterus remained contracted. The ordinary attendant, by my wish, remained with the patient for two hours, and so far she was doing well; but when left to the care of her friends, she persisted in sitting up, hæmorrhage then supervened with a relaxed uterus, and she died of syncope in a few minutes.

I have met with no other death after chloroform.

The President considered the questions raised in the paper of the greatest possible interest. He would like to have the experience of the Fellows present on some important points,—the effect of chloroform in predisposing to hæmorrhage after labour;

the results as to the use of chloroform in puerperal convulsions; and as to the occurrence of death from the employment of chloroform in midwifery practice.

Dr. Murphy stated that, with regard to the use of chloroform in puerperal convulsions, he had found it to be a most valuable agent in controlling the paroxysms. It has succeeded where the more usual remedies have failed. In ordinary cases of labour, where the pains are severe, he had also found it extremely beneficial. For this purpose it is not necessary to put the patient asleep; pain can be controlled, and the patient remain perfectly conscious. The first effect of chloroform is on the sentient nerves, and pain may be relieved long before insensibility takes place. Its administration in this manner he had found to give the most complete relief. He was asked by Dr. Oldham two questions: one was, whether he knew of any case of death from chloroform? secondly, whether he gave chloroform in the true puerperal convulsions with albuminous urine? To these questions he replied, that he knew of no deaths from chloroform in the practice of midwifery. With regard to its use in true puerperal convulsions with albuminous urine, the best answer he could give was the relation of a case. He was called to attend a lady, a year or two ago, pregnant with her first child. She was of middle age. Her labour was not difficult; it lasted about eight hours; her pains were very acute. She would not take chloroform, and, being a woman of much fortitude, she struggled to command herself, but in the contest she became giddy, lost her sight, and convulsions followed. She was bled, without controlling the convulsions. Chloroform was then administered with perfect success, and the paroxysms were at once controlled. Tranquil sleep followed, and the convulsions did not return. He carefully examined the urine, and found it to be albuminous. The lady perfectly recovered.

Dr. Rogers could not recollect a single case of flooding produced by its use. He was careful to give ergot to patients who had previously flooded. He had been able to turn more easily, and had likewise given chloroform to its full extent in some cases of craniotomy, but as a rule he merely soothed and calmed his patients with it. A very small quantity was used at the Samaritan Hospital during the operation of ovariotomy; he did not think it added to the shock of such operation, or diminished the chances of recovery, nor could he say that ether or a mixture of ether and chloroform was preferable in such operation.

Mr. Cumberbatch had never known flooding induced by the use of chloroform in midwifery, and that, as far as his experience went, hæmorrhage was not more likely to occur than if it had never been given. No fatal case had come under his notice in which the result could be ascribed to chloroform.

Dr. Routh's opinion was decidedly adverse to that generally

given by previous speakers. He believed that chloroform, when given to any extent, developed a tendency to imperfect contraction after the removal of placenta, and thus favoured the occurrence of hæmorrhage. Since he had used chloroform he certainly had a larger proportion of cases of hæmorrhage. He was also certain, from experiment, that it materially lessened uterine contractions during the first stage, and illustrated this opinion by a well-marked instance. In the second stage, except when carried to the absolute unconsciousness of the patient, it did not influence the uterine contractions. But, if given largely, as every accoucheur would acknowledge who had turned with chloroform, and without it, it certainly diminished the force of the contractions. He had heard of one case of death after chloroform in labour. It was that where a practitioner delivered by forceps, a well experienced nurse giving the chloroform while he was using them. As the child was extracted, the woman fell back suddenly and died. The suddenness of the death especially appeared to him to prove the fatal issue was due to chloroform.

Mr. Chapman was desirous of eliciting the opinion of the Society as to the propriety of using chloroform in puerperal convulsions, and as to what rules should be laid down for its administration under such circumstances.

Dr. Hewitt observed, that no rule universally applicable could possibly be laid down as to the use of chloroform in puerperal convulsions. In some cases—a marked instance of which he related—the condition present was caused by very extensive disease of the kidneys. In such cases, chloroform was perfectly useless. In other cases, when the blood-poisoning and the albuminuria were only temporary, and not so dependent on organic disease, chloroform had proved to be very serviceable.

Dr. Martyn had employed chloroform in painful and difficult labours for many years of practice, and he had met with no seriously unfavorable results from it, but otherwise. Sometimes troublesome sickness appeared to follow, as in other cases, and he has observed some check to pains, but whether this effect is confined to the first stage of labour, he was not able to say. He had never met with a serious hæmorrhage after the use of chloroform. Indeed, he decidedly believed that it rather saves the patient in this respect. As to its application in severe cases of convulsions in labour, he was most anxious for the opinion of the author and of those who have had experience in such cases. In one case in his own practice which terminated fatally, a considerable amount of blood was lost naturally without any effect in abating symptoms. A young woman, primipara, very anasarcous before labour, was attacked with convulsions towards the close of it. No case could be better marked. The child's head being low down, she was delivered by forceps at once. Considerable hæmorrhage then ensued, and the patient soon fell into a state of coma and died,

the convulsions and other symptoms not being at all relieved. In watching the record of many cases of puerperal convulsions, he had observed that large bleeding, shaving the head, and the use of ice, had seldom been followed by satisfactory results. He himself would rather trust to chloroform than any other known remedy. In many of the minor operations of midwifery, in hour-glass contraction, for the removal of the placenta, &c., excepting to relieve pain, he did not consider chloroform to be required.

Dr. Cleveland suggested that in cases of convulsions associated with albuminuria, the specific gravity of the urine, when practicable, should be ascertained, inasmuch as the presence of albumen in that fluid, *per se*, did not necessarily indicate blood-poisoning; but when it co-existed with a low specific gravity there was evidence, in addition to the general symptoms, of the retention of those salts in the blood, which, in a healthy state, are eliminated by the kidneys. Under the latter circumstances he thought that the administration of chloroform was more likely to be injurious than otherwise.

Dr. Braxton Hicks, in reply to Mr. Chapman, said he had used chloroform in puerperal convulsions to produce quietude during instrumental delivery, and found it to succeed very well, and without untoward result. In reply to the suggestion thrown out by Dr. Cleveland, Dr. Hicks said that he had continually examined the urine of patients with puerperal convulsions, and had found it always albuminous at some time, during the attack or after. It may be present only for a short time, and might be missed if not carefully watched for. The specific gravity was always high, generally with blood-corpuscles, waxy and epithelium casts, in fact the evidence of acute "Bright's disease." Whether the addition of chloroform to this state was safe, or whether it would add to the blood-poisoning, was not yet determined.

Dr. Druitt said it was difficult to apportion the amount of danger to be ascribed to the chloroform, or the amount of good in eclampsia. The cases must be judged by a fair analogy with others. He cited an instance of a lady dying in childbirth fever—so called—but in reality of scarlet fever superadded. He did not find that hæmorrhage was induced by administration of chloroform, and he agreed with the author generally.

Dr. Braxton Hicks wished to know if Dr. Kidd had used chloroform and ergot together, and if so, what was his experience in their joint action in irregular labour pains.

Dr. Kidd, in reply, had found chloroform and ergot go very well together, especially if used, as it were, alternately,—the effect of one allowed to wear off a little before using the other. In conclusion, he expressed his satisfaction that the experience of the Society was in favour of chloroform even in hæmorrhage cases, and so in cases of retained placenta. As to eclampsia, he believes there are three forms of this disease, and in two chloroform is a

certain remedy rather than the lancet. Even albuminuria is due to pressure of the gravid uterus on the kidneys, not actual disease. He agreed with Dr. Murphy on this point, but not perhaps so well as to the same speaker's view that the muscular fibres of the uterus are not relaxed by large doses of chloroform. He had, however, great respect for Dr. Murphy's opinions, and would say, as corroborating them, that the muscular fibres of the heart, so like the uterus, are not acted on by chloroform as popularly believed. As to convulsions, he would say that all the best men in Europe and America—Simpson, Churchill, Meigs, McClintock—approved highly of chloroform in a large majority of cases. The explanation of these convulsions by Van der Kolk in the paper is the true one; but if there were superadded apoplectic effusion, which occurs in only 20 per cent. of the cases, then perhaps nothing would be of use, and chloroform would do neither harm nor good, and the lancet positive harm. With reference to ether, Dr. Kidd prefers it in tedious exhausting operations like ovariotomy. A mistake sometimes is made to use six or eight ounces of chloroform in such an operation, but six or eight drachms might answer, as the operation, though attended with vast depressing "shock" to the nervous system, is not very painful after the first section of the skin over the linea alba. He has known cases, too, where there was great exhaustion saved by beef-tea and wine injections, especially if sickness from chloroform prevented food being taken. Very good absorption, especially in children, goes on from injections. Chloroform does not lead to inflammation, as supposed by some, as in some absurd statistics, because, in an hospital, of those not chloroformed 1 per cent. die only; but of those under chloroform a larger number have the operation of forceps or craniotomy, the latter fact is ingeniously omitted.

June 3rd, 1863.

Dr. GREENHALGH in the Chair.

Present—37 Fellows and 6 visitors.

The following gentlemen were elected Fellows:—E. Barker, Esq.; Dr. Jos. G. Barratt; Gwynne Harries, Esq.; Dr. Hibberd; Dr. J. J. Nason; Josh. A. Tapson, Esq.

CASE OF UTERINE AND EXTRA-UTERINE (FIMBRIAL) PREGNANCY, PROGRESSING SIMULTANEOUSLY TO THE FULL PERIOD OF GESTATION. DEATH. POST-MORTEM EXAMINATION.

By Louis R. Cooke, M.R.C.S. Eng.,
ACCOUCHEUR, ROYAL PIMLICO DISPENSARY.

(Communicated by Dr. Greenhalgh.)

It is doubtful whether the following case presents any conditions likely to increase our useful knowledge, to any extent, of the phenomena and treatment of abnormal pregnancies, except that it established the fact of the coexistence of an uterine fœtus with one in the fimbriæ of the Fallopian tube, both reaching the full period of pregnancy.

However, as I cannot recall an instance of such a fact having been previously recorded, it may be well to make the profession acquainted with the details of the case, if only as one of the curiosities of obstetric practice.

Moreover, it is only on account of its extreme infrequency

that the teaching of the case is deprived of the utmost practical importance; inasmuch as it is evident that, supposing a correct timely diagnosis in a future case, it would become a question whether or not to perform a compound operation for the benefit of, at any rate, the fœtuses.

In the present case, however, the post-mortem examination appeared to establish the fact, that a fatal result must have happened to the mother, in any event.

Case.—December 8th, 1862.—I was suddenly called upon, on account of the illness of a colleague, to attend Mrs. E— R—, æt. 39, in her fourth labour, her previous confinements having been unaccompanied by any unusual conditions. I found her suffering but slight pains, which she described as "*grinding pains*," at long intervals; she was ordinarily cheerful in manner, and expressed but little anxiety as to the result; her pulse was good, and as far as her own sensations indicated her condition, she was in a very favourable state for the approaching event. She stated, however, that she had been confined to the house during the whole of her pregnancy, by a difficulty of walking, and even of standing for any length of time, owing to dragging pains and a constant sense of weight in the abdomen, as though its contents were about to burst through the parietes. She was also unable to lie long on her back, or on the left side, because of the same feeling. These are, as far as I could make out, the chief inconveniences from which she suffered.

On examining the abdomen, the patient lying strictly on her back, I found a swelling, which presented the following peculiarities:—it appeared to spring from a comparatively plain surface, about midway between the ensiform cartilage and the umbilicus; on the right side, also, it appeared to rise from a line which would about correspond with the outer edge of the rectus muscle, and the whole swelling was tilted forwards, and considerably to the left side; its apex occupying a point about on a level with the umbilicus, and about two inches to the left of it instead of above it, and in the situation of the linea alba. The form of the tumour, also, was

more spherical than usual, so that in fact the first glance conveyed to my mind a suspicion of ovarian disease. A further examination revealed the undoubted existence of a living fœtus in the tumour; the limbs were to be distinctly felt, so distinctly indeed, as to increase the suspicion that there was not uterine as well as abdominal wall between them and the fingers, and therefore to add to my impression of an abnormal pregnancy.

The placental souffle was distinctly audible over a large surface, but I failed at this time to hear the fœtal heart. On examination per vaginam, I found the canal much elongated, its rugæ obliterated with the exception of an irregularly annular fold of membrane in the ordinary situation of the vaginal cul de sac, and the os uteri drawn up so far as to be entirely out of reach of the finger: this also appeared to add to the possibility of the uterus being unimpregnated, and being displaced in obedience to the situation of a tubal pregnancy.

It appears now, however, that this fact, and the unusual rotundity of the abdominal protuberance, are explicable on the grounds of the existence of a tumour situated behind and to the right side of the uterus, thus greatly anteverting it, and presenting for abdominal examination its rounded fundal rather than its more pyriform anterior aspect.

Under these circumstances, I thought it advisable to seek the opinion of Mr. Spencer Wells, who brought with him Dr. Kuman, of Vienna, and the result of their examination was to establish in their minds the probability of a double uterine fœtation; inasmuch as the placental souffle was audible over so large a surface as to make it improbable that it was caused by a single organ; and also because Mr. Wells appeared able to discover the sounds of two fœtal hearts,—one set audible to me in the left hypogastrium, and the other detectable by himself, and less certainly so by Dr. Kuman, also at the upper and right portion of the swelling. Mr. Wells also suggested, as the result of his vaginal examination, the probability of a breech presentation in the first instance. The pains, however, continuing very slight, and

being entirely abdominal, it was agreed that I should content myself with seeing that the patient's bladder was emptied, administrating a grain of opium, and leaving directions to be called immediately on the occurrence of expulsive pain or other urgent symptoms.

December 9th.—I visited the patient on two or three occasions during the early part of the day, and found that she had passed a good night, and that the abdominal pains were gradually re-establishing themselves as the influence of the opium passed off. In other respects, she was very much in the same condition as on the previous day. At six o'clock in the evening, I was hurriedly sent for, and found her in strong labour, the nurse stating that the expulsive pains had commenced about three o'clock, and had been gradually increasing in frequency aud severity. Upon making an examination, I found that the sacral concavity was occupied by a firm, resisting, rounded tumour, presenting no trace of fluctuation, and immovable under any degree of force which I felt justified in applying to it during the very short intervals between the pains. Its presence reduced the antero-posterior diameter of the inlet to less than two fingers breadth; on passing the forefinger through which, no os uteri was discoverable; it was in fact, completely dilated, and resting on and anterior to the symphisis pubis, a small portion of the convex cranial surface of a fœtus could be reached, rendered more distinct by its covering of integument in a rugose condition. Upon ascertaining these facts, and the probable necessity for operative interference, I sent for Mr. Meates, of Chester Square, and we together determined upon obtaining still further assistance without delay: accordingly, Dr. Greenhalgh attended as quickly as possible, the patient's powers still being good, her face expressing no more anxiety and exhaustion than is usual after four or five hours of ordinarily severe labour, and her pains being undiminished in frequency and force. The conclusion arrived at by Dr. Greenhalgh as the result of his examination was, that there was a tumour external to the gravid uterus behind and to its right side nearly filling up the pelvic cavity, the

nature of which was doubtful; he was, however, of opinion that it was most probably ovarian, owing to the rapidity of its growth, and there having been no hæmorrhage, so ordinarily a symptom of fibrous tumours of the uterus.

The question, however, of immediate importance was as to the best and speediest mode of relieving the patient of her uterine burden; and to do this there were three courses open to our consideration:—

1st. The displacement of the tumour, and turning the child.

2nd. The use of the perforator, and

3rd. Cæsarean section.

It was quickly decided that the perforation was inadmissible. 1st. Owing to the position of the head, which could only be reached by the finger curved over the pubes; and 2dly, to the extremely limited space through which the child would have to be extracted, even supposing perforation of the head could be effected.

The alternatives were, therefore, reduced to two; and it was decided to put the woman under the influence of chloroform, so as to suspend the action of the abdominal muscles upon the tumour, and to endeavour to raise it out of the pelvis sufficiently to allow of version of the fœtus being effected; failing that, to perform Cæsarean section. Chloroform was administered by Mr. Meates, and Dr. Greenhalgh then managed, with some force, to push the tumour out of the pelvis, when his hand becoming cramped, and the knees of the child being tightly fixed over the pubis, I took his place and succeeded in disengaging them, and bringing the trunk through the vulvæ, when Dr. Greenhalgh completed the delivery of the head.

The fœtus was dead, pulsation in the cord having ceased some minutes before the delivery of the head. The placenta was removed a few minutes later without difficulty, the whole operation, including the administration of chloroform, occupying about a quarter of an hour. The uterus contracted rapidly down to a certain point, which will be seen in the preparation; but being very much flattened out laterally, probably from the pressure of the tumour. There

was, however, no more than the usual amount of discharge from the vagina; nothing, in fact, which could be considered flooding, or even a tendency to flooding, during the night, through which I remained at the bedside; nevertheless, as the patient showed great signs of exhaustion, and the uterus was not satisfactorily contracted, I gave her a dose of the ergot towards morning, which had the effect of expelling a small clot, and of lessening the subsequent amount of discharge. She took beef-tea copiously, and brandy in small quantities frequently repeated. There was no nausea after the chloroform up to the time of my leaving, when I gave her two grains of opium.

December 10th.—The patient went on moderately well; complained of rather severe after-pains, and some slight occasional hiccup and sickness, but was able to take her beef-tea and egg-mixture, and to repeat the opium at night. She had slept occasionally for short periods during the day, and appeared refreshed by it. The pulse was about 100, and moderately large and soft, and her face tranquil. She had passed water twice during the day. The lochia were moderate in quantity. Ordered a continuance of the beef-tea and brandy during the night, and small quantities of ice to be given to check sickness. The abdomen continued too tender to admit of an examination of the tumour, and it was also avoided especially from a fear of disturbing the compress on the uterus.

11th.—Visited her in the forenoon, and found her suffering great pain in the abdomen, intermittent in character—or rather, perhaps, remittent—with occasional extreme exacerbations; lying on her back with her knees drawn up; great dyspnœa; an extremely anxious expression of face; pulse 130, small and compressible. Ordered her two grains of opium, and continued doses of brandy and egg, also a large sinapism over the abdomen. She gradually sank, and died about half past 7 p.m.

Post-mortem examination twenty-one hours after death.—Present: Dr. Kuman, of Vienna, Dr. Greenhalgh, Mr. Spencer Wells, Mr. Meates, Mr. Anthony Colburne, and self.

An external examination of the tumour through the abdominal wall, now rendered lax by the emptying and contraction of the uterus, and the passive condition of the muscles as opposed to their instinctive resistance of pressure during the time the patient was suffering pain, afforded a prevision of its true character. Its contour, traced by the finger, was like that of a fœtus, masked by the presence of the containing membranes with the contained liquor amnii.

On opening the abdomen carefully, by an incision from the ensiform cartilage to the pubes, and reflecting the walls, the first thing revealed was the body of a full grown female fœtus contained in its membranes, which were unruptured and full of fluid.

The anterior surface of the chorion was in immediate relation with the abdominal peritoneum, to which it was not adherent, nor was it enclosed in a capsule of any sort.

Beneath the tumour, the uterus was seen contracted to something less than its present size in the preparation, and *unruptured;* and the other viscera being in their relative situations, making allowance for the presence of the tumour.

There was a large quantity of greenish-brown grumous fluid in the peritoneal cavity, which I think cannot be accounted for by an accidental small opening made in the membranes whilst completing the abdominal incision; inasmuch as the liquor amnii was found to be almost pellucid, though greenish in tinge, and I therefore felt disposed to consider it a product of inflammation.

On opening the fœtal membranes, and removing the fœtus, it was found attached by an unusually long umbilical cord to the placenta, which was firmly attached to a shallow basin of structure, the whole surface of which it occupied. This was tied down on its peritoneal aspect, by very numerous and strong bands of old adhesion; *so tough, indeed, as to resist all efforts to break them down with the fingers,* and even to offer considerable resistance to the knife.

On removing the whole sexual apparatus from the body, it became evident that the placenta occupied the inner

surface of the fimbria of the right Fallopian tube, which had expanded into a shallow capsule for its attachment, leaving the containing membranes of the fœtus free from any covering except such as was afforded by the maternal abdominal parietes.

The tube itself was much elongated, and on passing a stylet along it from a puncture made at its uterine insertion, the point appeared to be arrested at about the axis of the convex surface of its expanded extremity.

On tracing the corresponding ovarian ligament, a defined ovoid mass in the ordinary position of the ovary was discoverable, which will doubtless be found much altered in structure, but which may possibly be verified still as ovarian tissue on further examination. The tube and ovary of the left side were of the natural size, and in the ordinary relations to the uterus.

No further examination of the body was made.

The lessons derivable from the case appear then to be—

1st. That in cases of doubtful tumour, complicating parturition, it may be well to discover, immediately after delivery, whether there be any evidence of placental bruit and fœtal heart sounds, with a view to gastrotomy.

2nd. Whether, in case the feasibility of the operation be entertained, the probability is, or is not, that the adhesions of the tumour may be so firm and numerous as to preclude the removal of the whole mass involved.

3rd. Whether, supposing the existence of extensive adhesions to be admitted, it is advisable to remove the fœtus with the prospect of some portion of the liquor amnii finding its way into the peritoneal cavity, and with the possibility of the placenta becoming encysted (the cord being brought through the abdominal incision), and being thrown off at a future period; or whether to allow the tumour to remain, and give the patient that chance of a reprieve.

4th. A further minute examination of the unaffected ovary may possibly establish, by the absence of a true corpus luteum, the possible containment in this case of two ova in one graafian vesicle.

Dr. Greenhalgh remarked that the case so ably narrated by Mr. Cooke was most interesting in a diagnostic and practical point of view, and he believed was without parallel in the annals of obstetric medicine. He drew attention to the remarkable absence of abnormal symptoms during pregnancy, to the extreme anteversion of the womb, and to the influence of the labour-pains in forcing the extra-uterine fœtus from its position in the abdomen into the pelvis, and so occasioning an obstacle to the passage of the intra-uterine fœtus.

Dr. Graily Hewitt remarked that this was a case possessing very great interest, and it was a most unusual one. The observation made by Mr. Wells as to the presence of two distinct sets of fœtal heart-sounds antecedently to the commencement of the labour was conclusive as to the fact that both the intra-uterine and the extra-uterine fœtus were of simultaneous origin—were, in fact, twins; otherwise it would have been just possible that the extra-uterine fœtus might have been the product of some previous impregnation.

Dr. Rogers agreed with the last speaker (Dr. G. Hewitt) in the supposition that the fœtus found in the abdomen was not the product of an anterior conception to the one removed from the uterus. The facts stated by Dr. Greenhalgh, Mr. Cooke, and especially by Mr. Spencer Wells, proved, he thought, that the two were conceived at the same time, and were twins.

Mr. Spencer Wells said that Mr. Cooke had suspected the existence of an extra-uterine fœtus before he (Mr. Wells) had been called in; and it was the evidence of the presence of two living children, afforded by the sounds of two fœtal hearts—one heard under the right false ribs, and the other in the left iliac region—which had put them all off the track indicated by Mr. Cooke, as it certainly did not occur to them to suspect the presence of two children, both alive and at the full term, one within and the other without the uterus. He (Mr. Wells) had been called in on previous occasions of suspected extra-uterine pregnancy, where it had been feared that gastrotomy might be necessary; but in every case the child had proved to be within the uterus; although, from the extreme thinness of the abdominal walls and uterus, in some cases the child seemed to be covered by scarcely anything more than skin. The only thing apparent in this case, uncommon in cases of twin pregnancy, was the very loud sound of the placental murmur; and this might become a valuable indication in future cases. In this case it was supposed to depend upon the large size of the placenta. He (Mr. Wells) examined per vaginam, and thought he made out a breech presentation; but, as he had not practised midwifery for many years, he was not very confident about it, and advised Mr. Cooke, if he met with any difficulty after labour had fairly set in, to consult some experienced accoucheur.

Dr. Rogers asked Dr. Greenhalgh what course he would have pursued had he known that the tumour he felt likewise contained a living fœtus.

Dr. Greenhalgh, in answer replied, that had a living fœtus been detected after the delivery of the first, and the patient's condition been such as to justify an operation, he should have performed gastrotomy, which would almost certainly have saved the child and given the mother a good chance of recovery.

Dr. Cleveland wished to know whether the post-mortem examination had revealed such a condition within the abdomen that if gastrotomy had been performed soon after the birth of the first child there would have been a reasonable probability of a successful result.

Dr. J. Braxton Hicks considered this case a most interesting one, and he believed unique. He wished to know whether there was any trace of the old chorion villi upon the unattached portion of the ovum, as it was almost impossible to explain its free state, except that it must have been wholly included in the infundibular end of the tube up to the time of the formation of the placenta, and that by its growth it projected beyond it at a later period. He agreed with Dr. Greenhalgh as to the rule of excision of the child in such a case—namely, if the child were dead it would be best to leave it untouched, in order that adhesions might form—a point he had brought forward in the 'Guy's Hospital Reports' upon two cases of extra-uterine fœtation he had operated upon. If the child were living, then it would be an important question whether it should not be removed by abdominal section, in the manner suggested in the above paper, stitching the edges of the opening of the cyst to those of the outer wound before removing the child, leaving the placenta to come away of itself.

Mr. Cooke said the surface appeared to be entirely free from traces of chorion processes.

Mr. Spencer Wells said the question raised by Dr. Cleveland as to the practice which ought to be followed in any similar case was one of great importance. Supposing it were known that a child at the full period of pregnancy was extra-uterine, what ought the surgeon to do? He (Mr. Wells) questioned the morality of the principle suggested by the President and Dr. Hicks, that the rule of practice should depend upon the child being alive or not. If it were true that when the child is dead, women, as a rule, live for many years, and do not suffer very much, it could hardly be right to subject a patient to a very dangerous operation on the slender chance of the child surviving. It seemed to him (Mr. Wells) that the life of the child was only one, and not a very important, element in the calculation. Experience was wanting to determine the ordinary duration of the life of the subjects of extra-uterine pregnancy when left alone and when subjected to surgical operations, and each case must be judged by its own pe-

culiarities. In the case now before the Society, the question of operation had been seriously discussed over the dead body of the patient; and looking to the extensive attachments of the placenta and membranes, it was quite certain that the child alone and the unattached portion of membranes could have been removed. When the great liability of puerperal women to a low form of diffuse peritonitis was considered, it could hardly be expected that in this case the patieut could have survived the slow process of separation of the placenta after the removal of the child, and it was very doubtful whether her life would have been lengthened or shortened by gastrotomy.

Dr. Hicks said that the value of the child's life varied much in the estimation of different practitioners. An important element in carefully weighing the relative risks of leaving or removing a live child was, that should any fluid escape into the peritoneal cavity, it would be much less irritating than if the child were dead.

Dr. Graily Hewitt believed that to one at least of the questions raised by Mr. Spencer Wells a tolerably positive answer might be given—Was it justifiable to open the abdomen in order to extract a live extra-uterine fœtus? This question, as was evident from the observations which had fallen from others in the course of the discussion, would not meet with the same reply from all. To the other question—Was it justifiable to open the abdomen to extract a dead fœtus in a case such as that supposed, viz., just after the death had occurred?—he believed a decidedly negative answer should be given. There were abundance of facts on record showing that the dead extra-uterine fœtus may remain for years in the abdomen, giving rise to comparatively little uneasiness; in some cases during the whole of the rest of the patient's life, the woman in many cases during this time giving birth to a numerous progeny. And when steps were taken by nature to get rid of the foreign body, the evacuation was usually effected without much danger to the patient. It was therefore much the safer plan to allow the case to proceed without interference, and certainly at this juncture—viz., just after the death of the fœtus.

Mr. Cooke replied to the various speakers.

CASE OF INTERSTITIAL FŒTATION.

By Dr. Greenhalgh.

Dr. Greenhalgh exhibited a specimen of interstitial extra-uterine fœtation, which was removed from the body of a patient who had reached the fourth month of pregnancy without any abnormal symptoms, and who died in a few hours from the effects of internal hæmorrhage, which, upon opening the peritoneal cavity, was found to proceed from the attachment between the uterus and placenta which had partly given way.

The uterus generally was found enlarged and softened, and contained a well marked decidua, the fundus and upper part of the body of the left side was considerably developed, and expanded into a cup-shaped cavity, to which the placenta was attached without any intervening structure; here the uterine sinuses were most marked. The glandular structure of the cervix was greatly increased, its cavity being occupied by a gelatinous plug. Both Fallopian tubes were of equal length and of normal structure; the left, however, could be traced into the cup-like growth of the uterus. The left ovary was somewhat larger than the right, and contained a well-marked corpus luteum.

CASE OF TUBAL GESTATION. DEATH.

By John Marshall, Esq.

DESCRIPTION OF THE CONDITION OF THE PARTS INVOLVED; WITH REMARKS.

By Graily Hewitt, M.D., &c.

In the evening of March 31st, 1863, I was called to see Mrs. B—, a married woman, aged about twenty-seven. I

found her suffering from pain at the epigastrium, extending over the abdomen, accompanied by vomiting and prostration of strength. I prescribed for her an antispasmodic mixture, containing tincture of opium, and ordered a large mustard poultice to be applied to the epigastric region.

Upon visiting her the next morning, I found that the vomiting still continued, although the pain was not so severe. I then prescribed for her a mixture containing spt. terebinth., creosote, &c., combined with small doses of solid opium. I visited her in the evening, and found her in a dying state, complete collapse having taken place.

At the time of my first visit, I was informed that she supposed herself to be pregnant, and two or three days previous had had symptoms of a miscarriage, she believing herself to be about two months in the family way. On the occasion of my last visit, it occurred to me that she might possibly have taken some drug to cause abortion; although there was no reason why she should wish to conceal her pregnancy, she being a married woman and the *mother of two children.*

Acting upon this supposition, I questioned her closely, and she at last reluctantly admitted that she had purchased, at an herb shop, a liquid medicine for the purpose of causing abortion, and that she had taken three doses of it. A small quantity of a dark-looking fluid was shown to me, and she stated that she had taken all that the bottle contained, excepting about two table-spoonfuls which were left in it. She at that time felt that she was dying, and the statement she made I have no doubt was perfectly truthful. She died in about an hour afterwards.

I made a post-mortem examination of the chest and abdomen. The heart and lungs were quite healthy.

The liver, kidneys, and other organs contained in the abdomen were carefully examined, but nothing was found which could be assigned as a cause of death. The pelvis was then examined, and was found to be full of blood; several large clots, weighing altogether about two pounds, completely filled up the cavity. Attached to the left ovary

was a large clot; this being removed, the cause of the hæmorrhage was apparent, the Fallopian tube having been ruptured.

I removed the uterus and its appendages, and the next day submitted them to Dr. Graily Hewitt, who kindly offered to examine it and write a report of the morbid appearances.

An inquest was held upon the deceased, but it being difficult to trace any direct connection between the administration of any abortifacient drug and the post-mortem appearances, and still more difficult to ascertain from whom the drug had been purchased, a verdict of "Death from Natural Causes" was returned by the jury.

Description of the Specimen.

The preparation consists of the uterus, together with its appendages. The uterus is one inch longer than in the unimpregnated state; there is a corpus luteum in the left ovary. The left Fallopian tube is distended through the greater part of its extent, by a mass partly coagulum and partly placental in its nature; the fimbriated extremity is connected by inflammatory products with the coagula of blood which were described as being present in the pelvis. The left Fallopian tube has, moreover, been ruptured, a portion of the contents hanging out of the aperture by a sort of pedicle. The right Fallopian tube and the right ovary healthy.

Such is a general account of the specimen.

The uterus measures three and a half inches in length. The greatest thickness of the walls is rather above three quarters of an inch. It is very muscular and spongy. The villi on and within the margin of the os uteri are injected and hypertrophied in the manner which is usually observed in cases of pregnancy, but which is sometimes described as ulceration of the os uteri. The appearances presented when the specimen is under water leaves no doubt as to the fact that the condition present is one of simple hypertrophy,

elongation and injection of the normal structures of the part. The inner surface of the uterine cavity is soft and velvety to the touch; there is no membrane observable, and if such has been present it has been discharged; it appears probable that some degree of softening of the part has taken place since death.

The right Fallopian tube is pervious and healthy. The right ovary is healthy; it is one and a half inch long, and on section presents the normal appearances. The size of the largest Graafian follicle cut through does not exceed one-eighth of an inch.

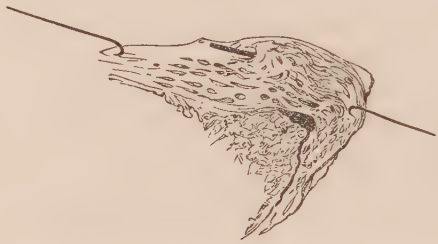
The length of the Fallopian tube—the seat of the pregnancy—slightly exceeds that of the right side. Externally it appears normal in size as far as one and a half inch from the uterus. At this point it becomes enlarged. The enlargement takes place rather suddenly, and for the remainder of its course, the Fallopian tube has a diameter rather exceeding one inch. It is difficult to ascertain the precise position of the fimbriated extremity from the very intimate manner in which this has become connected with false membranes and coagula there present.

This Fallopian tube is pervious at its junction with the uterus, but the calibre of the canal is less than on the opposite side. It is only pervious, however, for the space of about a quarter of an inch or even less. It was found, by cutting across the tube half an inch away from the uterus, that this stricture was quite limited to one point, for beyond a quarter of an inch from the uterus, the tube is quite pervious as far as the seat of the pregnancy. A bristle cannot be made to pass the construction either from the uterine or from the other side of the stricture, and there appears every probability that its obstruction was connected with the result which followed impregnation.

Pursuing the course of the tube externally, we come to the point at which the enlargement begins. At this situation—just one and a half inch from the uterus, the tube becomes enlarged as previously mentioned. The enlargement is for the distance of nearly half an inch constituted

by a thickening of the walls of the tube itself. On making an oblique but vertical section of the tube at this point, it is seen that the thickening chiefly affects the lower side of

Fig. 1.



Section of the Fallopian tube at point of attachment of ovum, showing the spongy texture of the wall of the tube. Actual size.

the tube, for the canal is situated much nearer the upper than the lower margin of the section. The canal of the tube becomes at this point suddenly enlarged and occupied by the structures presently to be described. Here, however, for a distance half an inch long, the two walls of the tube are together half an inch thick, and with this thickened portion of the tube it is that the placental mass is connected. In the remainder of its course the walls of the tube present nothing remarkable, beyond this, that they are thinner than usual, owing to the distention produced by the mass within.

The portion of the Fallopian tube which is thickened in the manner above described, has on section, a peculiar structure. The section of the wall shows that it is exceedingly spongy in structure, and with the naked eye are seen oval or round spaces, such as are ordinarily presented by the section of the uterus at the part corresponding to the placenta. Some of the spaces are evidently sinuses, and these are comparatively large; others nearly round are probably the cut sections of vessels. The microscopic appearance of the muscular fibres is well shown in fig. 2.

Partially separated from the wall of the tube is an irre-

Fig. 2.

Muscular structure of the wall of the Fallopian tube at the seat of the enlargement: microscopic appearance (× 250).

gular mass in which, by the naked eye, it is easy to perceive filamentous processes with branchlets. On subjecting these to microscopic examination, they are seen to be villi in process of transformation into vessels (see fig. 3).

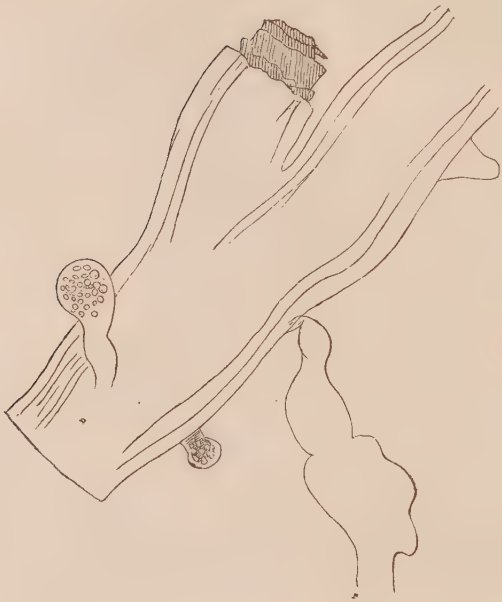
And attached to the placental mass in question are coagula; these coagula fill and distend the tube, some of them project through the ruptured portion of the tube.

The fœtus was not seen. In all probability it was torn away from its attachment when the rupture occurred and escaped into the peritoneal cavity, there becoming surrounded by coagula, and so eluding observation.

The corpus luteum was on the same side as the pregnancy. In many of these cases of Fallopian pregnancy, as was pointed out by our President, Dr. Oldham, the corpus luteum is found in the opposite ovary. Here it was not so. It measured half an inch in diameter; the walls had a thickness of one twenty-fourth of an inch.

The woman, the subject of the case, died at about the

Fig. 3.



Villi of the chorion in process of conversion into placental vessels (× 250).

time which is most commonly observed to be one of fatal in these cases, viz., two months of gestation. It is probable that the fatal rupture of the tube was a little accelerated by the fact that the patient had taken an abortifacient, a remedy particularly unnecessary had the woman been aware of the nature of the condition actually present.

There was no evidence of the presence of a decidua between the placental vessels and the wall of the Fallopian tube. It is right to state that the specimen was not in the best condition possible for examination at the time it came under observation. The connection between the fœtal vessels and the wall of the tube was very slight.

Dr. Cleveland thought the question whether surgery could be made available in cases of extra-uterine gestation a most important one. It appeared to him that the only probability of

of success attending gastrotomy would lie in the formation of such an accurate diagnosis as would warrant the performance of the operation while the parts were, so to speak, in a quiescent state; but when rupture and extravasation into the peritoneal cavity had taken place, and the patient was found in a state of collapse, he could not see how, at such a time and under such circumstances, opening the abdomen was to prove of service.

Dr. Graily Hewitt had great doubts as to the practical feasibility of carrying into effect any operative measures for the relief of these cases of rupture in Fallopian pregnancy. The condition of the parts was peculiar, the number of blood-vessels to tie was considerable, and the condition of the uterus and its appendages wholly different from that present in cases where ovariotomy is practised safely. But this was not all. The chief obstacle lay in the difficulty of the diagnosis. In by far the majority of cases the circumstances do not enable us positively to determine on the diagnosis. It is not certain in many such cases even that pregnancy is present; and he believed very few practitioners would be willing to perform such an operation as opening the abdomen on what must, in most cases, be at best a presumption that the case was one of the kind supposed. Peri-uterine hæmatocele he would mention as one of the conditions not rarely presenting symptoms very closely identical with those of rupture of an extra-uterine pregnancy.

Mr. Spencer Wells said that if it were certain that a patient was dying from internal hæmorrhage, owing to the rupture of the sac of a tubal pregnancy, he could see no sort of difficulty in the way of a surgical operation. The Fallopian tube and vessels in the hard ligament would be divided and secured exactly as in every case of ovariotomy. The operation would be extremely simple; what the result would be was quite another question. Dr. G. Hewitt's observation of the stricture of the Fallopian tube in this case raised the question as to the date of the constriction. It could hardly have preceded impregnation, or the spermatozoa could not have passed from the uterus to the ovary. These contractions of the Fallopian tube were of greater importance than usually known. He (Mr. Wells) had recently seen a case of death after symptoms of acute pelvic peritonitis and obstinate vomiting; and it was found that apoplexy of the left ovary, and of the subperitoneal tissues around it, had depended upon closure of the Fallopian tube near the uterus by a small cyst, possibly the unimpregnated ovum of the preceeding menstrual period.

Dr. Graily Hewitt said the facts of the case related warranted the belief that the stricture of the Fallopian tube led to the detention of the ovum in the tube. The canal might be sufficient to allow of the passage of spermatozoa, but not large enough to allow the ovum to pass. The passage of the ovum along the tube, it must be recollected, did not occur immediately after impregnation;

and the turgescence of the uterus consequent on impregnation would tend to render a narrow Fallopian tube still narrower.

Dr. Hicks said Dr. Hewitt's description of this case agreed with his own observations. In the 'Guy's Hospital Reports' would be found a case of tubal pregnancy which in its details agreed with this one in all particulars, and also another which corresponded to that of Dr. Greenhalgh. In both cases the villi of chorion were not involved in any way in any decidual structure, but merely applied to the surface with which they came in contact; a slight quantity of plastic matter seemed to assist in holding them together.

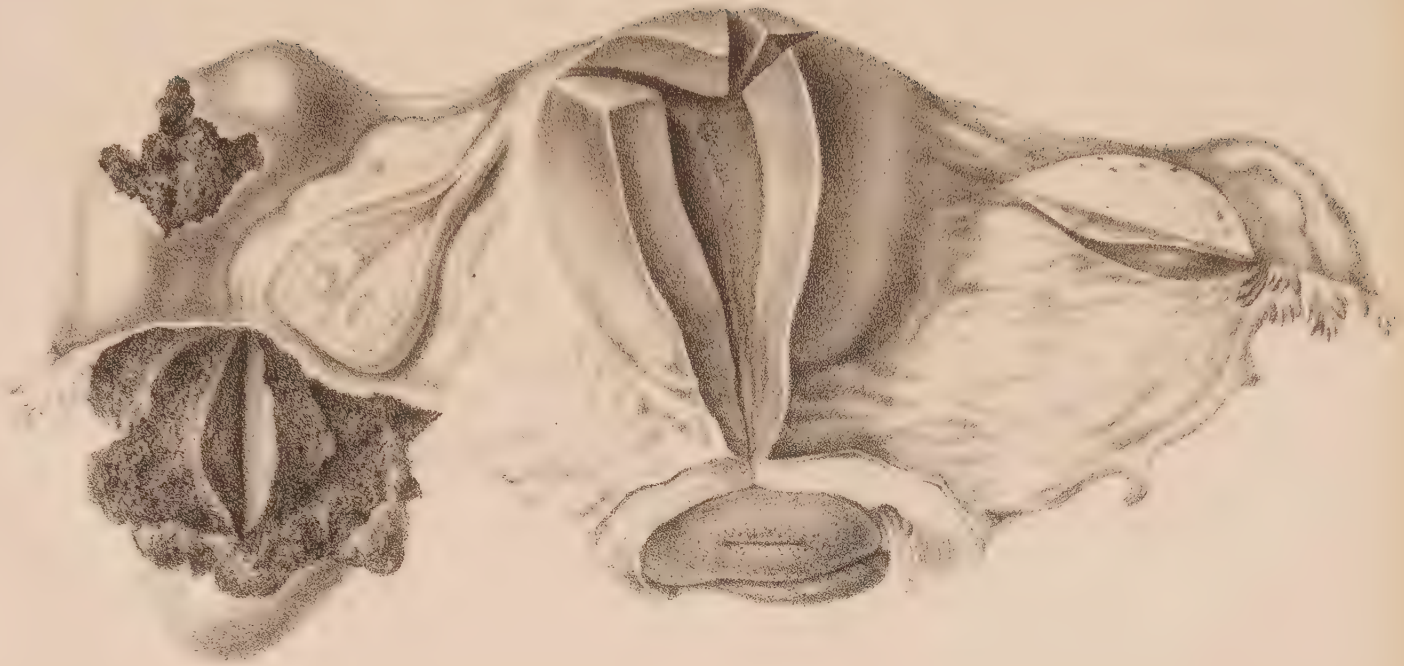
DESCRIPTION OF PLATE.

The Plate (No. III) is a reduced drawing of the uterus and its appendages, as described above. The uterus is laid open. The corpus luteum is depicted in the drawing.

SEQUEL TO A CASE RELATED IN VOL. IV OF THE 'TRANSACTIONS' OF THE SOCIETY OF RETAINED MENSES OF TWO YEARS' DURATION, CAUSED BY ATRESIA VAGINÆ, AND TREATED BY PUNCTURE OF THE UTERUS PER RECTUM.

By I. Baker Brown, Esq., F.R.C.S.,
SENIOR-SURGEON TO THE LONDON SURGICAL HOME.

The short communication which I now place before the Society is a sequel to a paper which I read in February, 1862, on a case of "Retained Menses." The patient, a



Stuart del.

young girl of fifteen, had suffered for two years great pain at each monthly period, without any show of menses. She was admitted into the London Surgical Home November 13th, 1861. The uterus externally felt the size of a four-months gravid organ, and could be felt bulging on the rectum. The girl was otherwise well developed.

November 21st, 1861, I punctured the uterus per rectum with a curved trocar, keeping the canula in. A large amount of the retained menses passed during the next two days, and on November 24th bright and fresh menstrual fluid. The canula was kept in a fortnight, and then withdrawn. On January 2nd, 1862, she menstruated per rectum, and shortly after returned home into the country. This was the state of the case when I brought it before the Society in February, 1862, and I then promised to give at a future period the after history of the case.

The fistulous communication between the uterus and rectum closed after the menstruation in January, and she was readmitted on April 10th with the uterus refilled, and suffering greatly.

On April 17th I again tapped her uterus per rectum, and drew off a large quantity of retained menses.

May 11th.—She menstruated through the canula.

15th.—I introduced through the canula some twisted silver wire, twisted in such a manner that when in the uterus it opened out, and I was in hopes thus to keep the fistula open. The canula was then withdrawn, having been kept in a month.

26th.—The wire was removed.

She was for one month after this employed as housemaid in the Home, but did not menstruate again; and as she began to suffer much pain, she was readmitted as a patient, and I waited until the uterus should refill before again puncturing it.

November 27th.—I introduced a trocar which was rather more curved than the one I had passed before, and the uterus being firmly pressed down from without by an assistant, a small piece of the bladder apparently got nipped

between the uterus and the point in the rectum at which the trocar entered; for as the trocar entered, some urine escaped along the side of it. However, a large quantity of the retained menstrual fluid came through the canula on the withdrawal of the trocar, and I then introduced the instrument made by Mr. Pratt, of Oxford Street, and which I have brought to show the Society.

For a day or two after the operation the urine was discoloured with menstrual fluid.

January 3rd, 1863, she menstruated per urethram, the instrument being still in.

In February she again menstruated per urethram, and on February 24th the instrument was removed, having been in two months.

She has since the removal of the instrument menstruated twice per urethram in March and April without any inconvenience whatever, and is now quite well, having returned to her duties as housemaid.

In the first week in May she again menstruated, and, curiously enough, the menstrual fluid came away per rectum as well as per urethram.

SOME REMARKS UPON THE TREATMENT OF MECHANICAL DYSMENORRHŒA AND STERILITY, WITH A DESCRIPTION OF A NEW METROTOME.

By Robert Greenhalgh, M.D.,

PHYSICIAN-ACCOUCHEUR TO ST. BARTHOLOMEW'S HOSPITAL, AND LECTURER ON MIDWIFERY AND DISEASES OF WOMEN AND CHILDREN IN THE COLLEGE; FORMERLY PHYSICIAN TO THE SAMARITAN HOSPITAL FOR WOMEN, ETC.

The frequency of dysmenorrhœa (difficult or painful menstruation), the important periods of life at which it occurs, the sad effects it not infrequently produces on the female

economy, its intractibility to treatment, and its close connection with sterility, invest this symptom with an importance it would be almost impossible to overrate.

It is not, however, my intention to enter fully into the consideration of this affection, which would occupy too much of your valuable time, but to select one form, the mechanical, for a few comments, chiefly with a view of introducing to your notice an instrument which I have been repeatedly using, with great success, during the last ten months. Doubtless, most of the Fellows are aware that so long ago as the year 1823 Dr. Mackintosh suggested, and most successfully pursued, the plan of dilating, by means of bougies of various sizes, the os and cervix uteri in certain cases of dysmenorrhœa. Out of twenty cases thus treated by that physician, in eighteen the success was most marked. "Ten of the eighteen," he says, "were married women, of whom seven afterwards fell with child. Eight were unmarried young women or widows." I am bound to state that neither in my practice nor, as far as I can learn, from that of others, has like success followed this procedure; besides which, it is attended with three great drawbacks:—1st. It requires much time. 2nd. Repeated examinations. And 3rd. It is apt occasionally to give rise to an amount of irritation which every now and then lays the foundation of inflammation, not alone in the uterus itself, but in the surrounding structures. Moreover, when we bear in mind the fact that a large number of the sufferers are young unmarried females, we shall not be surprised that this practice has more or less fallen into disuse. To Dr. Simpson is due the merit of having first, about the year 1844, divided the os and cervix uteri with a *bistoire caché;* and such was the success of this and subsequent operations, that many practitioners of eminence have since adopted his treatment.

For some years I followed the plan recommended by Dr. Mackintosh with variable success, but with more than one casualty, when I ventured to divide the os and cervix uteri in a woman aged thirty-two, married five years, who was not only cured thereby of her dysmenorrhœa, but shortly after-

wards became pregnant for the first time, and was delivered in due course of a living male child.

Delighted with this success, I resolved to pursue this practice in every suitable case, when I was suddenly alarmed by nearly losing a patient from hæmorrhage, after the division of the os and cervix uteri with Dr. Simpson's metrotome. The patient was in perfect health, but sterile. Upon mentioning this casualty to several of my medical friends, I learnt that some had had, and others heard of, similar alarming results after the use of that instrument, notwithstanding, that in many cases the operation had been performed by gentlemen of known dexterity, and who had especially devoted themselves to the treatment of the surgical diseases of females. Alarmed by this case and the reports of others, I reverted to the original method of dilatation, but mostly with but partial success, and always with a determination to return to the division of the os and cervix, for the reasons above assigned, if an instrument could be constructed by which this operation might be safely effected.

On mentioning the subject to Messrs. Weiss, they at once undertook to carry out my instructions, and have at length perfected the instrument I now have much pleasure in exhibiting to the Fellows. I propose to call it the bilateral metrotome. This instrument is $11\frac{1}{2}$ inches in length, and ends in a blunt extremity like a uterine sound, $2\frac{1}{4}$ inches long. It consists of two lateral halves, which can be firmly clasped together. Each half contains an inclined plane, regulated by an adjusting screw, upon which a blade is made to move downwards and outwards by pulling the handle of the instrument. The method of using it is as follows :—The patient being placed in the ordinary obstetric posture, and the position of the uterus previously ascertained by the sound, the extremity of the metrotome, well greased and guided by the index finger of the right or left hand, is to be passed through the mouth and neck into the cavity of the womb until the shoulder of the instrument is in close contact with its external orifice. In the great majority of cases, and with ordinary dexterity, this can be effected with little discomfort to the

patient. The instrument being held firmly *in situ*, the finger is to be withdrawn from the vagina, when traction made upon the handle, which is connected with the two blades, will cause them simultaneously to diverge and cut their way rapidly through the strictured canal. The blades being sheathed at the shoulder, the instrument may be withdrawn from the vagina without any fear of injury to that canal. A sponge-tent, or, what is still better, a silver stem of the requisite size, may now be easily passed through the divided parts into the uterus, and left there two or three days, when all fear of union of the divided edges will have ceased.

The advantages of this metrotome are as follows:

1. Its extreme simplicity. It can easily be cleaned.
2. Its use requiring no exposure of the patient.
3. Its easy, safe, and painless application.
4. Its cutting from within outwards, the blades gradually diverging, thus dividing the internal os slightly, the external os freely.
5. The accuracy with which the direction and extent of the incisions can be regulated.
6. The rapidity and certainty of its action.

During the last ten months I have divided the os and cervix uteri in upwards of thirty cases, without one single casualty; and when I state that two ladies were operated upon at my house and were enabled to walk shortly afterwards to their homes without pain and little difficulty, and that I have, on several occasions, operated upon the out-patients of St. Bartholomew's Hospital under similar circumstances and with like results, it will sufficiently indicate the confidence I have in the safety of this operation performed by the metrotome exhibited. Still, I should wish it to be clearly understood that I do not advise the adoption of such a course, from which I am fully aware ill effects might ensue. As the main object of this paper is to introduce this instrument to the notice of the Fellows, and to point out its peculiar advantages, I shall not enter into any minute detail of the cases operated upon, and the more so, as sufficient time has not yet elapsed to determine the full amount

and persistence of the benefits derived. I may, however, be permitted to say thus much—that out of twenty-three cases which have come under my notice from time to time since the operation, eighteen have benefited considerably.

Twenty were married, and 3 single women. Of the former, 5 had had children, but had been sterile for periods varying from four to eleven years; 3 have since become pregnant—one five months, another three months, and the last two months, after the operation. The two former are progressing most satisfactorily, the third having miscarried at about the sixth month. All these patients had been under treatment for dysmenorrhœa, and had derived but little and only temporary benefit from general and, in some cases, local treatment combined; 7 were cases of congenital and 16 of induced dysmenorrhœa; 11 have been wholly free from pain since the operation; 7 suffered so little discomfort as not to need treatment of any kind, while the remaining 5 have experienced but little relief. In 2 of these there still exists retroversion, with chronic metritis; in 2 others, the latter disease alone; while in the fifth there is no apparent uterine affection, the patient, however, being highly hysterical, and having suffered repeated attacks of neuralgia.

The affections in which I have found the division of the os and cervix uteri especially serviceable are as follows:

1. In dysmenorrhœa, congenital and induced.

2. In sterility, where there has been more or less obliquity of the uterus, with a small external os uteri.

3. In endometritis, where accumulations of muco-pus take place in the uterine cavity.

4. In fibroid disease of the uterus, accompanied with great pain and discharges of coagula.

5. In suspected and determined cases of intra-uterine polypus.

I may add to these affections cases of a peculiar form of dysmenorrhœa, of which I have seen a few examples, in which, although the uterus fully admits the sound, still the

menstrual secretion coagulating in the uterus and distending its cavity gives rise, about the third or fourth day of the discharge, to the most agonising pains (uterine colics).

Two cases of this kind, which had resisted every other method of treatment, I have recently cured by dividing the os and cervix uteri.

A few general observations upon dysmenorrhæa may not be here out of place.

Of the three forms—mechanical, congestive, and neuralgic—considerable experience has convinced me that the first is by far the most frequent, and I am anxious to impress this fact upon the attention of the Society, as somewhat severe comments have been made by a recent author upon the mechanical treatment of this affection. Many cases which I formerly regarded as of the latter two varieties, and have treated upon the principles ordinarily advocated without success, have readily yielded to division of the os and cervix uteri; still, I have usually been in the habit, and would strongly urge a similar course, of relieving any prominent symptom or symptoms by appropriate remedies before proceeding to operative interference. I have invariably noticed that cases so treated progress more satisfactorily. Again, it is most important to bear in mind that where dysmenorrhœa has been of long standing, no matter what its causes, more or less congestion or induration of the uterine tissues, or enlargement of the cavity of the uterus, is frequently induced, which will require treatment after the operation, especially in those cases of a metritic origin, before the case can be fairly said to be cured. A neglect of this precaution may lead to a redevelopment of the dysmenorrhœa.

The plan I generally pursue in such cases is as follows. In addition to the ordinary hygienic measures, I give a combination of bichloride of mercury, quinine, and belladonna, in pills, one night and morning. If there be much local tenderness, I order from four to six leeches to be applied to the cervix; if there be but little pain, suppositories of atropine and cocoa-nut butter; if much induration, the addition of

strong mercurial ointment. The suppository should be used every night, and oftener if necessary.

I have seen the best results from douches, at first of tepid, and subsequently of cold water, to the uterus, which may be used night and morning with an appropriate apparatus, the ordinary female syringe being worse than useless. In some cases sedative, in others astringent, injections will be found useful.

In conclusion, a word or two upon sterility.

Experience has convinced me that women are most prone to conceive immediately after, more rarely before, the menstrual flow, and I have frequently met with cases, especially in feeble women, where coitus early in the morning, after the invigorating influence of a night's rest, has appeared to produce the happiest results.

Again, the female discharges may be so acrid, especially where she is in indifferent health, as to destroy the spermatozoa; in such cases, the injection of warm water into the vagina, so as simply to remove all secretion, or the use of a very weak solution of either the carbonates of soda or ammonia in milk or any bland fluid, will be found most useful, if had recourse to shortly before connection. As it is my object to be brief, I trust you will excuse me for omitting many valuable facts which have a bearing upon this most important topic.

July 1st, 1863.

Dr. OLDHAM, President, in the Chair.

Present—35 Fellows and 2 visitors.

Dr. Ed. E. Day was elected a Fellow of the Society.

A CASE OF FIBROID TUMOUR, SITUATED IN THE ANTERIOR WALL OF THE UTERUS, AND WHICH OBSTRUCTED LABOUR.

By Robert Barnes, M.D. Lond., F.R.C.P.,

LECTURER ON MIDWIFERY AT ST. THOMAS'S HOSPITAL; PHYSICIAN TO THE ROYAL MATERNITY CHARITY.

The patient from whom this specimen was taken died apparently from rupture of the bladder produced during labour. A tumour of the fibroid kind was found in the anterior wall of the uterus at the lower part. It was very hard. It seemed probable, from its situation, and from what could be gathered of the history of the case, that this tumour had been driven down before the child's head, and jammed against the symphysis pubis, closing the urethra. Two lacerated openings were found in the bladder.

I may record the incidental observation that, on examining by the microscope some decidual shreds taken at a distance of some inches from the placental seat of this uterus, I found débris of chorion-villi in a state of granular degeneration. These were part of the superfluous villi not wanted for the formation of placenta, which had become atrophied at an early stage of gestation, and which are commonly supposed to disappear altogether.

A CASE EXHIBITING THE ASSOCIATION OF SPINA BIFIDA WITH HYDROCEPHALUS.

By Robert Barnes, M.D. Lond., F.R.C.P.,
LECTURER ON MIDWIFERY AT ST. THOMAS'S HOSPITAL; PHYSICIAN TO THE ROYAL MATERNITY CHARITY.

In the fourth volume of the 'Obstetrical Transactions,' Mr. Richards published a case of a child born with spina bifida. The malformation consisted in an open fissure, involving the integuments as well as the vertebræ. This fissure closed up by granulations. As the cavity closed, the head began to enlarge from hydrocephalus.

The association of hydrocephalus with spina bifida does not appear to have received the attention it deserves. It has, however, been of late insisted upon by my colleague, Mr. Hutchinson, who believes that the two affections owe their origin to a strictly analogous condition of the neural membranes; in short, that spina bifida is due to a morbid change of the spinal arachnoid similar to that which, taking place in the central arachnoid, produces hydrocephalus. Regarded from this point of view, the occasional coincidence of the two affections, resulting from a similar morbid process in different parts of the serous investment of the nervous centres, becomes intelligible. Mr. Hutchinson informs me that in spina bifida he has found the posterior portions of the vertebræ not absent, but simply displaced. The missing portions of bone are found in the walls of the cyst, being carried away from their proper situation by the growing sac.

There are several preparations of spina bifida in the Museum of St. Thomas's, which exhibit imperfectly developed neurapophyses. These are generally much everted, so as to be sometimes nearly on a level with the back part of the bodies of the vertebræ.

The presence of the neurapophyses seems conclusive evidence against the theory that spina bifida is owing to an original defective formation of the vertebral column, allow-

ing the saccular protrusion of the membranes of the spinal cord. On the other hand, the occasional coincidence of hydrocephalus with spina bifida strongly supports the theory that the fissure of the spinal column in the latter affection, like the wide separation of the cranial bones in the former, is simply the effect of the distension of the theca vertebralis by fluid accumulated under a morbid process in the arachnoid cavity. The fact that the neurapophyses are found in a state of arrested development may be accounted for by the transportation of these bony centres from their normal seat and connections at an early period of life.

The photograph submitted is an excellent illustration of the coincident distension of the cranial and spinal membranes. The child was born with spina bifida, affecting the lumbar region. There was no evidence of hydrocephalus during the first nine months; at the end of that time the head began to enlarge rapidly. The photograph represents the state of the child when a year old, and shows an advanced stage of hydrocephalus and a large tumour in the lumbar region.

I may add that I have in several other instances seen hydrocephalus associated with spina bifida; and it is probable that the association would be more frequently witnessed were it not that a large proportion of children afflicted with spina bifida perish soon after birth, before the hydrocephalitic complication has had time to develop itself.

FACE PRESENTATION.

By Robert Barnes, M.D. Lond., F.R.C.P.,

LECTURER ON MIDWIFERY AT ST. THOMAS'S HOSPITAL; PHYSICIAN TO THE ROYAL MATERNITY CHARITY.

Dr. Barnes exhibited a stereoscopic photograph of a child born by face presentation. It was taken on the third day after birth. It exhibited in a marked degree the distortion produced during labour with this presentation when the cranium is plastic. The occiput is flattened in, and the

frontal region enormously elevated and bulged out. The eyes, especially the right one, were rendered very prominent. The mother said the deformity had already abated considerably. But Dr. Barnes observed that the child would probably retain in after life, in some degree, the peculiar moulding of the head imparted to it during birth. In like manner, he said, it might be remarked that the occipital elongation, known as the "sugar-loaf head," produced by the more common mode of birth, persisted more or less obviously in many persons.

Face presentation. Copied from photograph.

CASE OF TUBERCULOSIS OF THE UTERUS.

By Robert S. Tomlinson, Esq., M.R.C.S., &c.

In July, 1860, I was consulted by a single lady, æt. 55, for a profuse uterine discharge, which she stated she had been suffering from for two years, and which had commenced about two years after the cessation of the menses. The discharge was not sanguineous, but watery, of a dirty yellow

or pale-brown colour, without smell, and attended with no pain. It did not come away in gushes, but was continuous night and day.

I had known the lady and her family many years. She had always enjoyed tolerable health, but was very thin and of sallow complexion. She had lost two sisters by cerebral disease when both were past the middle period of life, and one younger of fever; but I have not been able to trace any tendency to consumption in the family.

On a careful examination of the uterus, I could not detect any deviation from the normal state. I ordered a strong solution of alum and zinc to be injected into the vagina; the cold hip-bath, quinine, and a generous diet. This treatment was continued for several months without any material alteration in the symptoms; the discharge meanwhile rather increasing in quantity, but not changing in character. In the spring of 1861 I advised her to consult Dr. West. This gentleman, after two examinations, was unable to decide on the nature of the ailment. He directed injections with muriated tincture of iron, and iron internally; and recommended that the case should be carefully watched for its further development.

Our patient remained in much the same state till towards the end of June, when she complained of pain in the back and pelvis, which gradually increased till it became necessary to give morphine at regular intervals for her relief. The uterus was perceptibly enlarged, so much so as to give the impression of the existence of a fibrous tumour to a very experienced medical friend who saw her with me about this time. The appetite failed. There was no cough. She had frequent sickness and attacks of diarrhœa. The pulse became quick. There was great emaciation, with œdema of the legs and feet, and an aphthous condition of the mouth and throat, and in this state she sank, on the 19th of October, fifteen months from the time she first consulted me.

On an examination of the body two days after death, with the assistance of my partner, Mr. Lowe, we found the thoracic and abdominal viscera healthy, with the exception

of the liver, which was enlarged and in a state of fatty degeneration.

The uterus was as large as in the third month of pregnancy, measuring upwards of five inches from fundus to os, and instead of the usual pyriform shape, presented an angular appearance, arising from a considerable prominence on each side, just where the Fallopian tube leaves it. The cervix was greatly hypertrophied. The uterus, Fallopian tubes, and ovaries, were filled with tuberculous masses, surrounded by a thick yellow matter, and on its removal the lining membrane of the uterus presented a pitted or honeycomb appearance, from superficial ulceration, as far as the cervix, where it was perfectly healthy.

On opening the Fallopian tubes and squeezing them, pellets, varying in size from that of a large shot to a horse-bean, firm in the centre, and more or less softened on the surface, were thrown out with a sort of jerk. *There were no tubercles in the lungs, nor in any other organ.*

This is the first case of the kind I have had an opportunity of examining, but the appearance in the uterus and its appendages so exactly corresponds with the description of of uterine tuberculosis given by Dr. West and Dr. Copeland, as to leave no doubt of its identity. In Mr. Holmes Coote's case, recorded in the 'Med. Gaz.' (vol. x, new series), the cervix was implicated in the disease, but this seems to be of rare occurrence. Still more rarely has this disease been found apart from the deposition of tubercle in the lung or elsewhere, the absence of which in this case made it so difficult to diagnose. Dr. West says "the disease seems to be always secondary to tubercular deposit elsewhere," and he states this in connection with tables he has drawn up of 113 cases furnished by Professor Kiwisch and Dr. Gril; but on the authority of Rokitansky, "it is not unfrequently primitive, but more often secondary."

Dr. Oldham remarked that he had seen at least six cases of uterine phthisis. The disease appeared to attack the cavity almost always, and he had usually found the uterus to be of small size. In one case, however, he had seen the organ enlarged, and the patient died of tubercle elsewhere.

ON THE USE OF WIRE LOOPS, HORSESHOE WIRES, ETC., FOR CORRECTING ANTI-VERSION, RETROVERSION, OBLIQUITIES, AND PROLAPSE OF THE UNIMPREGNATED UTERUS.

By Charles Clay, M.D., Manchester.

The unimpregnated uterus is subject to a variety of malpositions, which are found to occur (in some form or other) more frequently than usually supposed.

To remedy these evils no little ingenuity has been exercised; unfortunately most of these mechanical contrivances are so expensive as to prevent their general adoption, and are attainable only by the richer classes of society; thus the poor, and particularly those seeking hospital relief, amongst whom these malpositions are most prevalent, are entirely excluded from the benefits which they offer. Then, again, many of the old instruments are only effective whilst being worn, doing nothing whatever towards bettering the condition of the case, and are so ill-contrived that, on being removed, the evil they were intended to correct remains the same, or even worse than before their application. The old form of pessaries, when critically examined by a mechanical eye, are as absurd and as contradictory to the object in view as they are disgraceful to the profession to sanction in the present advanced state of medical science. The *only advantage* gained by the old ball or ring, wooden or caoutchouc pessary, is simply to prevent a prolapsed uterus from protruding entirely outwards, by presenting a large obstruction between the vaginal walls and separating them to an unnatural distance, only to be the more relaxed and the uterus more prolapsed when that obstructive medium is removed. Thus the evil sought to be remedied remains, and the condition of the parts even worse than before the application. Not the slightest advantage has been gained towards enabling the uterus to keep in its true position, or

the walls of the vagina to regain their former dimensions and tonicity. Still, these ineffective instruments are those most generally in use, and are to be found in hospitals and at the instrument makers (I might say without fear of exaggeration) in such numbers that they might be measured by the peck, and the only argument for their use *is their cheapness.* It is true that of late years stem and spiral pessaries have been introduced into practice (my own spiral spring pessary paper read before the British Association in 1842, *vide* its description in my 'Manual of Obstetric Operative Surgery'). But what is the fact? *The expense* (which, after all, is but trifling) prevents their application becoming general; thus the use of any sort of improved instrument is extremely limited compared to that of the old and most mischievous (ball and ring) pessaries. It appears strange that hospitals should be forced by necessity of cheapness to adopt the use of an instrument *positively injurious,* and stranger still that medical men should sanction their use in sight of the fact that the evil is actually made worse by the application; far better to use an instrument productive of real good, although fewer may receive the benefit, on account of the expense. I may mention here the pessary of Professor Simpson, of Edinburgh, which, whilst it seeks to remedy the malposition by a stem *within* the cavity of the uterus, yet the lower part of the instrument, which forms the real support, is on the principle of the old pessaries (the ball or ring), that is, by spurring against the two opposite walls of the vagina, and thus keeping them asunder and on the stretch. I am willing to admit that Dr. Simpson's pessary has been of great use in many cases, but it has its disadvantages—the stem is often a source of great pain and irritation within the uterine cavity, and the force of the uterus, in endeavouring to adhere to its malposition, often causes the point of the stem by its pressure to do mischief, by exciting inflammation or hæmorrhage, independent of the lower portion of the instrument being on the old principle of ball and ring pessary, stretching parts asunder that ought not to be. Lastly, we have the perineal pad, first suggested by a friend of mine,

and this instrument, *because it is cheap,* has found its way into extensive use in some hospitals. It was, however, never intended by its inventor to do more than simply prevent an extreme case of prolapse from protruding outwardly, and so far its application is really effective whilst it is worn, as it is next to impossible for the uterus to protrude outwards, and it forms a firm support, enabling many poor women to continue their laborious occupations with more comfort, particularly in standing positions. But this is all it can accomplish, and those who use it extensively ought to know that it does not add one iota towards the cure; the original mischief remains the same or worse. Thus, then, it becomes evident, unless an instrument be very cheap, it is placed out of the reach of at least three fourths of those suffering from these maladies.

The spiral elastic-wire pessary which I recommend in my manual is in my opinion a very effective instrument, and there are but very few cases it will not benefit. Whilst it is in use the vaginal walls have an opportunity of regaining their normal tone and calibre, by the assistance of astringent lotions, and the uterus is kept in its normal position without any undue stretch being put to the vaginal walls. These means, with tonic diet and medicine, will often complete the cure; but unfortunately this instrument requires an outlay of from 7*s.* to 8*s.*, and this amount prevents its general application. There are two points to be considered in applying it:—First, in very old-standing cases, where there is great laxity of parts, the os uteri is somewhat apt to slip off the summit of the coil, and wants some attention in re-application and adjusting occasionally. Secondly, the coil or spring must be covered (for the first week or ten days' wear) with oiled silk, to prevent the folds of the vaginal walls insinuating themselves between the wires. To accomplish an effective and still cheaper instrument has long occupied my attention, and it was whilst treating a case of anti-version an idea occurred to me, so extremely simple and so inexpensive, that I conceive it impossible to object to it on that score. I have already tried it in many cases of anti-

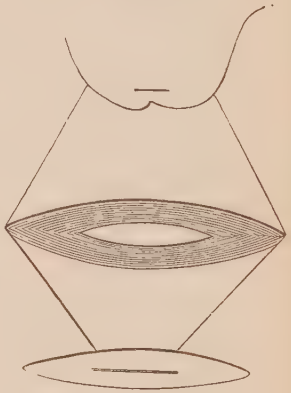
and retro-versions, in obliquities, and in prolapse, with every success; indeed, so far I have never been disappointed.

This instrument is worn with great comfort in any position, creates no uneasy feeling, allows applications to be used freely to the vaginal canal, allows the vaginal walls to regain their natural dimensions without putting them on the stretch, and keeping the uterus in the mean time comfortably in its proper position, and, lastly, it can be made for 2*d*. Before explaining this instrument and its mode of application, I would first direct attention to the following diagrams. Fig. 1 represents in simple lines the

Fig. 1.

Fig. 2.

Fig. 3.



vaginal canal, the walls of which are of a certain length, and at a given distance from each other, the os uteri at one

end, the os externum at the other. Every deviation from this condition is abnormal, and requires correction; and all attempts to rectify any deviation from the position here portrayed should be based on the restoration of this usual and natural position of parts.

Fig. 2 shows when the walls of the vagina become relaxed, from whatever cause, the uterus and os externum approach nearer to each other, thus giving rise to the many malpositions of the uterus which are sought to be remedied by mechanical means.

Fig. 3 shows the mischievous principle of all the old class of pessaries, and some modern ones also, by stretching the already too much relaxed walls of the vagina, and forcing the os uteri still nearer to the os externum, and only preventing entire protrusion by the obstructing mass interposed; and when that is removed, the condition of parts is worse than before. Stem pessaries are certainly a great improvement, as they allow the vaginal canal a chance of being restored, and afford some hope to the patient that ultimately the instrument may be dispensed with, and a cure effected. By making the stem of elastic wire instead of porcelain was my suggestion in 1842; by this improvement I avoided the possibility of injury from fracture, which accident I have witnessed *more than once*, accompanied by very severe hæmorrhage from a wound of the vagina, by the broken end of a porcelain stem pessary. The elasticity also of my instrument entirely does away with that vibratory jar often felt in walking, riding in conveyances, or in going down a flight of stairs, with a porcelain stem pessary. I have seldom found a case that has not yielded to this instrument when properly applied; but, like others, I have also found that the expense is too serious for a large proportion of those afflicted. Consequently I feel the greater pleasure in offering my new suggestion, which I will now endeavour to explain. There are three instruments (*vide* Plate IV)—fig. 1, a wire loop; fig. 2, horseshoe wire; fig. 3, a double horseshoe wire. These three are applicable to all the malpositions of the uterus. The wire is what is termed

No. 13 or 14 in thickness, and when doubled up and soldered in the middle part about twelve to thirteen inches long. The mode of application is very simple, and will be easily understood. Suppose the case one of antiversion (*vide* fig. labelled "Antiversion"), the instrument (fig. 1, Plate IV) is introduced, guided by the index finger of the right hand, the loop is placed over the cervix, and then the os uteri drawn forward, assisted by the thumb pushing back the fundus uteri; when the uterus is placed in its natural position, the loop is closed partly by pressure with the finger and thumb, so as to hold it *without strangulating;* the stem of the instrument is then moulded by the finger to the curve of the vagina outwards, leaving the entrance of the urethra a little to one side; the moulding of the stem is now continued to the front of the abdomen (on which a bandage has been previously placed); the open ends of the wire are now fastened to the bandage by large pins, or the ends forced up two slots in the bandage, and when the points emerge at the top of the slot the points are bent downwards to secure them (as in the fig. 4). The narrow bandages round the thighs are to keep the main bandage from rising upwards. Suppose it a case of retroversion, the horseshoe wire (fig. 2, Plate IV) is used, introduced in the same way; the horseshoe is placed on the front of the cervix and pushed back to its proper position, which, when obtained, the stem is moulded and secured as before, as shown in the plate labelled "Retroversion." If a case of prolapse, the double horseshoe end is, when introduced, regulated so as to hold the os uteri, and then raised to its proper position, and the stem moulded as in the two former instances, and secured in the same way (*vide* Plate IV, labelled "Prolapse." It will be seen at once that all species of obliquity yield to these applications, and need no further description. To make the simplicity of these instruments and their cheapness more apparent, I present the Society with two sets of instruments, *one* more carefully finished and tinned over, the cost of the set of three being (without tradesmen's profits) about 9*d.*, or 3*d.* each. The plain ones,

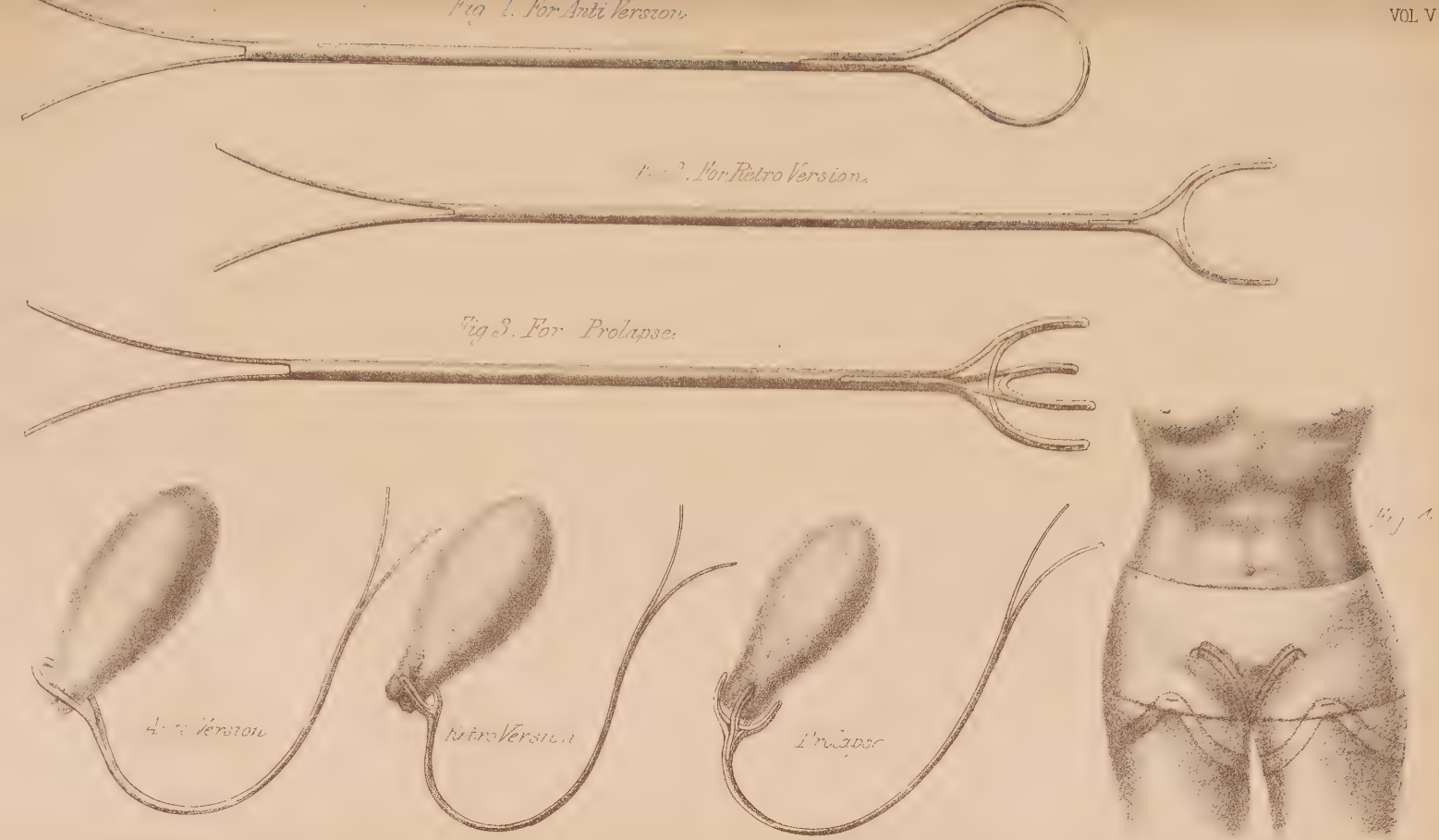


Fig 1. For Anti Version
For Retro Version.
Fig 3. For Prolapse.
Anti Version
Retro Version
Prolapse
Fig 4.

which I make myself, and get soldered for about one penny each, answer every purpose required. Whether these instruments are tinned over or remain in their original condition as copper wire is of no moment, as in either case they keep much cleaner than in any other material. It will be seen at once that these instruments occupy so little space that there is not the slightest obstruction to means being used whilst wearing them for restoring the parts to their normal condition, or in keeping the vaginal canal cleanly at the same time the menstrual discharges are not impeded. I now leave the subject to the consideration of the Society, that it may be dealt with according to its merits.

Dr. Graily Hewitt believed that in the majority of cases of retroflexion of the uterus a mechanical treatment was not applicable; but that in a few cases, on the other hand, such mechanical treatment was required, and in which a cure of the distortion was possible. He had been in the habit of using an instrument with the results of the action of which he was perfectly satisfied. It consisted of a stem of ivory the length of the uterine cavity, and straight; this stem was mounted on a globular air pessary. The air pessary, when distended with air, maintained the stem in the uterus, and prevented it slipping out. The instrument in question was less liable than others, he believed, to injure the uterus.

Dr. Routh said the use of internal pessaries for retroversion was always a hazardous expedient, sometimes giving rise to serious and even fatal results. Dr. Hewitt's instrument he believed to be very ingeniously contrived; but even this failed sometimes to give relief. Dr. Simpson's was very efficient, but that also produced occasionally serious results. One drawback in this and in Dr. Hewitt's was that the stem in utero was too long, and irritated especially the fundus uteri. This part once inflamed, was accompanied with far more distressing as well as severe consequences to health. Moreover, it was chiefly due to this fundal endometritis that retroverted wombs gave annoyance at all. In the absence of this fundal inflammation, many patients went about with retroverted wombs without inconvenience. Hence one advantage of using short-stemmed pessaries, by which all further irritation at the fundus was avoided. The reason of this distress to patients was obvious. That part of the uterus was supplied by nerves from the renal plexus, and not the inferior aortic, and was therefore in direct nervous relation with the splanchnic nerves and semilunar ganglia superiorly, and with the ovaries (also supplied from the same sources) inferiorly. Hence the greater general discomfort. Moreover, Dr. Simpson's instrument fixed the

uterus *in situ*, and so every jerk of the body was felt by the uterus. Dr. Hewitt's instrument was likewise too long in the stem, though this might be remedied; but although it admitted considerable freedom of movement of uterus, it was sometimes forcibly ejected by the uterus, because not always firmly secured inferiorily. To meet these difficulties, he (Dr. Routh) had devised a modification. His instrument could sometimes be borne where others were not tolerated. It consisted of a coiled wire bell-spring, covered with caoutchouc, and at about two inches or less from its upper end separated by a gutta-percha disc from the lower portion. Upon the disc, with the coiled wire within the organ, the uterus rested, while the lower end was secured by tapes or a napkin from ejection. By means of a sound to which the curve of the retroverted uterus was previously given, and then pressed within the coil, it might be easily applied. The spring, once the organ was replaced, would by its elasticity maintain the organ *in situ*, while it would not impede full movement of the uterus with the movements of the body. Of course the instrument should not be used till after all inflammation had subsided, under the use of leeches or other local depletion, aperients, &c. Sometimes the use of sponge-tents to reduce the uterine volume, after Dr. Moir's plan, was also of great use as a previous measure.

Dr. Greenhalgh stated that among the patients at St. Bartholomew's Hospital and in private practice he found misplacements of the uterus extremely common, and productive of considerable distress, both in their complicated and occasionally in their uncomplicated forms. In prolapsus and procidentia he strongly recommended the cautious use of a modified Zwanke's pessary, which possessed the advantages of forming a floor upon which the uterus could rest, and took off all tension from the ligamentous supports of the uterus, enabling them to recover their tone; while astringent injections could be thrown into the vagina, with a view of constringing the dilated and relaxed parts forming the floor of the pelvis. In retroversions and retroflexions he had used a great variety of mechanical contrivances, both intra-uterine and vaginal, but, he was compelled to admit, with little or no benefit. He entirely concurred with most practitioners that all intra-uterine supports should be done away with, on account of the irritation and inflammation thereby occasioned, which had too frequently led to fatal results. The plan he at present pursued in such cases was, first to remove all complications, when possible, by appropriate local and general treatment, and then from time to time to replace the uterus by means of the finger or uterine sound, and in some few cases to introduce sponge-tents into the neck of the uterus; thus he had succeeded occasionally in rectifying the faulty position of the uterus, after which, in a small proportion of cases, impregnation had followed.

Dr. Barnes said, in reference to the treatment of retroflexion

of the uterus, that he regarded the subject as one of great importance. He had seen severe distress, mental as well as physical, produced by this form of uterine displacement. The treatment was difficult, and not always successful. He had occasionally, by the adaptation of various forms of pessary he had constructed for special cases, however, succeeded in relieving this complaint. With reference to prolapsus uteri, he could not understand how any one largely engaged in the treatment of uterine disease could ignore the value of pessaries if these were constructed on sound principles. It was important to distinguish the varieties of prolapsus. There was one class which occurred in women who had passed the child-bearing age, in which the prolapsus depended upon atrophy of the uterus and absorption of the fat and other tissues, which in younger women padded the pelvis and helped to keep the pelvic organs *in situ*. Wanting this support, the uterus was apt to fall through under straining from cough or from labour. This form he called prolapsus from senile atrophy. It was so purely a mechanical disorder that it required mechanical means as a substitute for the natural support that was lost. Nothing answered so well here as a pessary. The form he used had a small cup which received the uterine neck; this cup was supported on a curved stem so small as not in any way to disturb the vagina, which, on the contrary, was able to grasp the stem and almost to support the pessary by itself. The end of the stem was, however, suspended by elastic bands to an abdominal belt. This elastic support enabled the uterus and pessary to move freely, as in the natural condition, under the various movements of the body. This form of pessary he understood had been in use at King's College Hospital. In a vast majority of cases it answered admirably. He had never less than a hundred women under his care wearing this instrument. It gave complete relief, and enabled them to follow even laborious occupations with comfort. In another class of cases, occurring during the child-bearing period, and commonly dependent on inflammation or congestion with enlargement of the uterine neck caused by delivery, pessaries were not so useful. It was often that the prolapsus was cured by removing the uterine engorgement which caused it. But even here there were cases in which the support and rest afforded by the pessary he had described were of essential service in removing the congestion and inflammation. When the uterine neck was prolapsed, the circulation of the blood was mechanically retarded. When the uterus was replaced, the vessels being restored to their natural position, the circulation was freed, congestion and œdema disappeared, the bulk and weight of the organ diminished, and the vagina, being enabled to contract around the stem of the pessary, gradually recovered its tone; and thus the pessary might fairly be said to cure the prolapsus. The value of the stem pessary in procuring "rest" for the prolapsed uterus, complicated with

œdema and engorgement, was, he felt satisfied, not sufficiently appreciated. But the pessary must be well constructed on the principle he had described. The balls, still too often used, which acted only by stretching the vagina and filling the pelvis, only made matters worse, and were the most absurd and mischievous contrivances.

Dr. Oldham, being asked by some of the Fellows to give the results of his experience as to the use of pessaries generally, stated that he rejected them; he had tried them all, but had come finally to confine his mechanical treatment to the employment of simple external support by means of a well-arranged pad and bandage, and that only in very bad cases; the internal treatment consisting in the use of the cold douche and attention to the state of the general health. In very many cases constipation was a troublesome complication. Small doses of aperients were most efficacious; out-door exercise, especially horseback exercise, was most valuable.

A CASE OF FACE PRESENTATION; DELIVERY BY FORCEPS; SUBSEQUENT SLOUGHING OR SEPARATION OF THE MUCOUS LINING OF THE BLADDER, AND EXPULSION OF THE SAME.

By W. Martyn, M.D., F.R.C.S.

On April 19th, at 7 p.m., I was requested by a neighbouring practitioner to see Mrs. H—, who had been in hard labour since 7 a.m. The liquor amnii had escaped two days before. This was her fourth confinement; her pains were and had been most violent and frequent; the face was said to present. My friend, who had not been able to leave his patient scarcely for the last seven hours, considered, from the little progress that had been made, that she could not be delivered without instrumental

aid. I found her much exhausted, her face flushed, pulse quick. On examination per vaginam, the os frontis was first felt, the face, with features much swelled, towards the right ilio-sacral suture; the occiput was out of reach above to the left of pubis; the right ear could be felt above the pubis, and my finger passed readily around the head of the child. I discovered that the brim of the pelvis was round and small. The pains forced the head of the child much upon the pubis. My impression was that a natural presentation of the first position had been converted into a frontal from the contracted state of the brim of the pelvis.

Our patient's first labour was at seven months—not particularly difficult, though the child seemed to have been killed in the birth.

The second, at full time, was very severe—the child again killed in the birth.

The third, a male child, at full time, was born alive after a very severe labour—eight hours of incessant pains—its head was much disfigured. In each of these cases the face was said to present.

We now determined to deliver our patient with the forceps. The soft parts of the mother were much swelled. After drawing off the urine (there was not much in the bladder) I applied both blades of the forceps very readily, and in a quarter of an hour brought down the child, dead. Meconium had been present in the discharges, but we did not feel justified in perforating.

The head and face of the child were compressed to a conical form, the os frontis forming the apex, and the occiput, forced back upon the shoulders, with this part of the body formed the base of the cone. We soon left our patient doing perfectly well. I said to my friend, "Look out as to the state of the bladder," for I suspected that it might have sustained mischief from the pressure of the child's head upon it.

On the 22nd, three days after the delivery, I was again summoned to see her. She was then in an alarming state—not expected to live out the day. She was looking most *pinched* and anxious. She had not slept since her delivery; her pulse

was very quick; her belly much distended, and tender on pressure; she was very feverish and restless; her vaginal discharges were offensive; urine constantly drained away; she had not passed any naturally but once since her confinement, and that was a few hours after. There had been much purging, and her weakness was extreme.

I passed a catheter, and drew off about two quarts of urine, bloody, highly offensive, and *ammoniacal.* She was much relieved. We gave her an opiate—milk and brandy; in the evening she was much better.

Each day the urine had to be drawn off twice, for about a week; it continued bloody and most offensive; the room was tainted by it; there was much pain and distress about the bladder. Our notion then was that there was destructive inflammation of the organ going on, partly, perhaps, from pressure and injury in the labour, but mainly from the long retention of highly ammoniacal urine—acting as a caustic or blister upon its walls.

May 6th.—Now, for several days the catheter had been unnecessary, but there was constant irritability about the bladder, attended with much pain; the urine was still loaded with muco-purulent matter, and was more or less bloody, but not less offensive. The severe constitutional symptoms had abated, and we considered our patient safe.

17th.—I was summoned. She was then in great distress; could not pass any urine but by drops; lumps of thick offensive matter escaped by the urethra.

18th.—She was a little relieved; the water came more freely.

19th.—She was again unable to pass her water; she could scarcely keep off the chamber utensil; sometimes she got on her knees, making efforts to force her water. I found, on examination, a portion of slough hanging out of the urethra. This I drew out; it was not a large piece; it seemed to be *sloughed mucous membrane.* The difficulties in the bladder continued until the evening, when more slough presented at the urethra, which the patient herself drew out with a *cloth.* This specimen is now before the Society; it

appears to be the whole, or nearly so, of the lining membrane of the bladder. About half a chamberful of dirty urine followed it.

The patient was now much relieved, but great irritability of the bladder continued, with much soreness. She could not retain her water, and was every five minutes or so on the chamber utensil. This state went on, with gradual abatement, for about a week, the urine losing its offensive character, but was still loaded with deposit.

30th.—Up to this time she has continued to improve. She can now hold her water and take two hours' rest at a time. She is able to leave her room, and is otherwise doing well.

Mr. Spencer Wells has brought before this Society a similar case in respect to the sloughing of the bladder.

Mr. Barnes, of Chelsea, also read a case at the Western Medical Society a short time since, in which the lining membrane of the bladder sloughed away whole. In these cases there had been long retention of urine. I believe this retention is the direct cause of the mischief in all such cases. A severe labour seems to precede, and is doubtless the cause of, the retention. Urine retained for three days, or probably less, is sufficient for the result. The retained urine becomes ammoniacal in a high degree, as in my case. In this state the ammonia acts like a blister upon the surface of the bladder, in the manner of its usual chemical effects upon animal tissues; continued, it induces the state of sloughing of the whole parts exposed, more or less deep. If the pressure of the child's head, or instruments, when used, caused the mischief, then it would be confined nearly to the parts injured.

The specimen shows, besides the mucous lining, much submucous tissue, and here and there some of the muscular wall. A patch or two of peritoneal surface, as I take it, may be seen. Mr. Spencer Wells's specimen, from his description, shows nearly the same parts, but it must have been somewhat larger. Mine measures about eleven inches by six or seven, in one piece.

I would say, then, that such sloughing of the bladder may be predicted if, after labour, there has been retention of urine for three days; if the urine is bloody and highly ammoniacal, the bladder is in a state of severe inflammation, with inability to pass water for a week or two, the urine becoming more and more putrid; then dribbling away, stopping suddenly sometimes, and the desire to empty the bladder most urgent; then a mass of slough may be expected to be found in the bladder, and at this time to present at the urethra.

CASE OF ASCITES, WITH OVARIAN DISEASE.

By Gustavus C. P. Murray, M.D.,

OBSTETRIC-PHYSICIAN TO THE GREAT NORTHERN HOSPITAL; PHYSICIAN TO THE BRITISH LYING-IN HOSPITAL; AND PHYSICIAN FOR THE DISEASES OF WOMEN AND CHILDREN AT THE ST. GEORGE'S AND ST. JAMES'S DISPENSARY.

Mrs. L— first came under my care, at the St. George's and St. James's Dispensary, towards the end of May last, and stated her case as follows:

She was twenty-eight years of age; had been married six years, but had never been pregnant; and her general health had always been good. About eighteen months ago her left foot began to swell and give her pain; for this she went into an hospital, but, deriving little benefit, she tried another institution, and altogether spent upwards of fifteen months visiting different charities, without deriving any permanent benefit. She now complained of great inconvenience from her enlarged abdomen, and expressed the hope that she was pregnant.

On questioning her, she told me she began to enlarge about five months ago, and has continued to have from that time to the present a profuse and constant discharge from the vagina; she has gradually wasted, and has lost strength

and spirits. On making an external examination, I found an equably distended abdomen, larger than that usually seen at the ninth month of utero-gestation. Manipulation at once detected fluid, and a solid mass just above the pubes. On gently tapping low down in the right iliac region, a firm, smooth substance bounded upwards and to the left side, instantly returning to its former position. It did not appear at first to be connected with the mass felt over the pubes, but afterwards I felt sure they were united.

Percussion gave dulness over the whole anterior and lateral portions of the abdomen, and resonance existed for about one inch only below the ensiform cartilage.

Examining per vaginam, I found the os and cervix uteri quite healthy, and the sound, on being introduced, passed to one inch and a half.

I now told her of my belief as to the nature of her enlargement, and prescribed a tonic, which she continued taking until her admission into the Great Northern Hospital on the 5th of June. Her condition, when admitted, was very unsatisfactory; she looked careworn, was thin, and emaciated.

Her abdomen measured forty-three inches in circumference.

Both legs and feet were œdematous, and over the internal malleolus of the left foot there was a large indolent ulcer.

She was ordered a diuretic mixture, and placed on full diet.

By the 10th her general condition was much improved; she was passing six ounces more of urine daily than she had done; and though the œdema of the feet and legs was less, there seemed to be an increase of fluid in the abdomen.

It was now thought advisable that she should be relieved by tapping, and accordingly thirty-three pints of a clear, straw-coloured, slightly sticky fluid, highly albuminous, were withdrawn by means of the trocar and canular. After the operation she experienced instant and great relief, and continued to improve up to the 14th, when she again began to enlarge.

On the 16th she felt tolerably well, and in the afternoon she sat up for a few minutes in a chair while her bed was being made. On returning to it, the wound in the abdomen opened, and at least fifteen pints of the same kind of fluid as was first withdrawn now escaped. I happened to see her soon after this had occurred, and was therefore able carefully to press out all the fluid that remained, and close the wound, putting on at the same time a tight bandage.

On the 20th sickness set in, and she vomited at least one pint of bilious matter. She was also troubled with diarrhœa, and in the course of a few hours there was universal tenderness over the abdomen, and a pulse of 150.

She was ordered an effervescing mixture with hydrocyanic acid, turpentine and linseed-meal poultices to the abdomen, and calomel with opium every four hours.

Under this treatment she gradually mended, and on the 26th she expressed herself as being quite comfortable, but still felt a little abdominal pain, which she thought was due to pressure and flatulence. Her pulse was 100, and the tongue nearly clean.

I now thought that she was in as good a state of health as it was possible to get her, if the tumour was to be removed at all; and as she and her husband were extremely desirous of having the operation performed—which, in fact, gave her the only chance of life—I agreed to carry out their wishes.

On the following day, at 12 p.m., however, violent peritonitis set in, and after a few hours of intense suffering, she died at 5 a.m., June 27th.

Post-mortem examination.—The body was much wasted at its upper half; the features were pinched; the breasts very small and ill-developed; abdomen much distended, and measuring forty-four inches round; both legs, but especially the *left,* much swollen. Before opening the abdomen, about thirty-six pints of fluid were drawn off. The intestines were slightly glued together, and were covered by a quantity of recently formed lymph.

In the pelvis there was a large multilocular ovarian cyst of the left ovary, weighing six pounds. It was free to the right, but was closely bound to the left brim of the pelvis by a broad, tough band of adhesion.

The bladder was slightly adherent to it, as also the ileum at two or three points; it had a long but broad pedicle. The tumour is now before the Society, and could have been removed during life successfully without very great difficulty.

Remarks.—In the case before us, there being such a large quantity of fluid present, it was impossible to ascertain of what description the tumour really was; it felt so hard and smooth as almost to lead me to think it was of a fibrous character, belonging to the uterus or ovary, and not an ovarian cyst.

I therefore determined on tapping, in order more clearly to ascertain the nature of the tumour, and whether it was movable or no; and also, by relieving the patient of the fluid, give her rest, and, with the assistance of tonics, &c., enable her better to undergo any future operation if necessary. Probably the ascites and the persistent and rapid reaccumulation of fluid was due to pressure caused by the tumour, which was so firmly bound down on the left side of the pelvis.

On examining the ovarian mass closely I found that the trocar had pierced one of the upper and smaller cysts, which contained an opaque, creamy fluid.

It is, I think, but reasonable to connect this important fact with the attack of peritonitis which caused the patient's death.

In conclusion, I must express my regret that I did not in the first instance attempt the removal of the tumour, or at any rate make an exploratory incision sufficiently large to ascertain its true nature.

This case is one which, I think, speaks strongly in favour of ovariotomy rather than the palliative treatment by tapping, in cases of ovarian disease.

October 7th, 1863.

Dr. OLDHAM in the Chair.

Present—46 Fellows and 7 visitors.

Dr. D. Carlyle and Dr. W. P. Price were elected Fellows.

Mr. Sequira exhibited an anencephalous monster, of which the following is a brief report:

BRIEF ACCOUNT OF FACE MONSTROSITY.

Tuesday, September 28th, 1863.—Mrs. H—, æt. 37, residing at the east end of London, was delivered by me of a monstrosity after four hours' labour, the head presenting, with a blood tumour protruding from the back of scalp, appearing to the finger like a portion of placenta, and of the size of a turkey's egg.

The fœtus on birth was found to be anencephaloid, with club feet and club hands, six distinct fingers and toes on either side. The genital organs partly developed, viz., a rudimentary imperforate penis, about the size of a small millet seed. Scrotum small, with hydrocele on the right side, and one testicle. The abdomen very large, as from ascites. General shortening of the bones of upper and lower extremities.

The antecedents of this case are as follows:

Mrs. H— has been married about nine years; has had three miscarriages, and five children born at full time. Two

of the miscarriages were malformed. Three of those born at full time have grown up well developed and healthy.

Five years ago she was delivered of a monstrosity which, as represented to me, is worse than the above.

There is no malformation on either side in the parents; but several of the family on the mother's side have webbed feet.

The accompanying drawings are taken from photographs which were shown at the meeting.

CASE OF SYPHILIS AFTER VACCINATION.

By Robert Druitt, M.R.C.P.

Dr. Druitt exhibited a drawing of a case of syphilis following vaccination. He saw the patient one morning last month, whilst going round the wards of the Lariboissère Hospital in Paris with M. Chassaignac, who courteously allowed him to have a drawing made in order that it might be exhibited on this side of the channel, where the possibility of

NOTE OF A CASE OF ASSOCIATED HYDROCEPHALUS AND SPINA BIFIDA.

By William Leishman, M.D.,
PHYSICIAN TO THE UNIVERSITY LYING-IN HOSPITAL, GLASGOW.

Observing the report of a case of associated hydrocephalus and spina bifida brought before the Society in July last by Dr. Barnes, Dr. Leishman forwards the following notes of a case which came under his attention at the Glasgow Royal Infirmary. It was that of a girl nine months old. The head measured nineteen inches from the tip of one ear to the other, and twenty-seven inches round the head. The spina bifida involved the whole dorsal and some of the lower cervical vertebræ. The tumour was four inches in length, the whole column being only eight and a half inches from cranium to coccyx. The upper five cervical vertebræ were perfect, so that there was not a continuity of the cephalic and spinal enlargements, although there can be no doubt of the two being dependent upon a common cause.

The case affords a striking illustration of the views of Mr. Hutchinson referred to in Dr. Barnes' case.

ABORTION PROCURED BY TENTS OF COMMON SEA TANGLE, (*Laminaria digitata*).

By W. Edward Pritchard, M.D., Glasgow.

Mrs. E—, of Greenock, æt. 30, fair complexion, short, stumpy figure, married, consulted me three weeks ago on the necessity of procuring abortion, having two years before been in peril of her life, and submitted to piecemeal delivery of child. On examination per vaginam, the antero-posterior

diameter was found abnormally contracted and distorted, perfectly obstructive to the passage of fœtus; she stated herself to be three months gone in the family way, and constantly troubled with sickness.

Dr. J. G. Wilson of this city had drawn my attention to the use of the sea tangle tent, recommended first by my friend Dr. Sloan, of Ayr.

I apprehended this would be a fair case for its trial, and accordingly recommended treatment by it. The fourth day following the application the ovum was expelled, and in a few days recovery complete.

I hasten to submit this single instance of its use, believing no time should be lost in communicating for the benefit of the profession and help of the malformed female—this simple and cleanly mode of procuring necessary abortion.

DISEASED CERVIX UTERI.

Dr. Greenhalgh exhibited two specimens which he had removed that afternoon with the wire écraseur of Weiss. The first, a specimen of epithelial cancer, involving the whole of the posterior, and extending to the anterior lip of the womb, was removed from a married woman, under the influence of chloroform, scarcely any blood being lost.

The second was a specimen of simple hypertrophy of the neck of the womb, two inches and a half in length, and five and a quarter in circumference, taken from a married woman aged forty-one years, who had one child twenty years ago. Her labour was lingering, and her recovery protracted. She complained that about seven years ago her "womb gradually came down," since which it had never returned, whether in the upright or recumbent position. She had experienced so much local discomfort, and it was such a barrier to sexual connexion, that she begged that something might be

done for her relief. No blood was lost during or after the operation.

Dr. Greenhalgh remarked that this affection, uncomplicated with procidentia uteri, is of rare occurrence, and is frequently taken for and treated by pessaries as the latter affection, to the great annoyance of the patient and aggravation of the disease. He had now operated on four such cases with perfect success.

Dr. Barnes observed that he had used the instrument of Mr. Weiss for the removal of fibroid polypi in several cases very successfully; but he preferred the instrument of Dr. Hicks, which was less cumbersome. With regard to the method of removing the vaginal portion of the cervix uteri, he thought the operation of Dr. Marion Sims—which consisted in amputating by a cutting instrument, and covering the stump by flaps of mucous membrane brought from behind and before—had a considerable advantage over ablation by the écraseur. By Marion Sims' operation the healing was much accelerated, and a better os was preserved. He (Dr. Barnes) had performed the operation with a most satisfactory result.

Dr. Routh said that he had also operated, and successfully, in several cases; but while he had admitted the usefulness of the écraseur, and its advantages in preventing hæmorrhage, he doubted if it might not subsequently preclude impregnation. The cicatrizing always left the os puckered and contracted, so as to give rise occasionally to dysmenorrhœa. None of his patients, nor those he had ever operated upon, so far as he knew, had had children, or even miscarriages, afterwards. This might be accidental, on which the experience of Fellows might throw a new light. If, however, barrenness followed the use of the écraseur, Dr. Sims' operation, which enabled the accoucheur to retain the os in a patent condition, was to be preferred.

Dr. Braxton Hicks was glad to hear Dr. Greenhalgh's good opinion of the instrument, inasmuch as it was a slight modification of his (Dr. Hicks's). Indeed, in the course of construction of his instrument, he had adopted the drum and endless screw as used by Weiss, but had afterwards discarded it, because it was found that the length of wire rope which could be used by his was practically as long as required, as might be seen on referring to the "Obstetrical Transactions." He had also removed many times the cervix uteri by different écraseurs, without any untoward symptom. He thought that the occlusion of the os uteri, if it occurred, might be overcome by a bougie as easily as in the operation of Marion Sims.

Dr. Graily Hewitt considered the écraseur objectionable in

cases of hypertrophy of the cervix where the bladder was drawn downwards with the cervix, inasmuch as there was a liability to injure the bladder. He had seen cases where the portion of the cervix situated above the vagina was greatly elongated, and in which the écraseur could not have been used, for the above-mentioned reason. In the other class of cases, where the hypertrophy was limited to the vaginal portion of the cervix, the écraseur could be safely and advantageously used.

NOTES OF A CASE OF CHRONIC HYDROCEPHALUS.

By Henry M. Madge, M.D.

In the hope of illustrating still further one of the most formidable of children's diseases, I venture to lay before the Society the following abstract from my notes of a Case of Chronic Hydrocephalus. The notes extend over a period of about three years. By way of commending my communication to the notice of the Fellows, I would remark that, although in the proceedings of the Obstetrical Society, the "Diseases of Children" have not, as yet, commanded much attention, it is scarcely too much to say that their study bears more than any other on our every day duties. The circumstances which led to my watching and taking particular interest in the following case were these:—The mother of the little patient had had six children, five of whom died from convulsions before they were a year old. I was engaged to attend the mother in her seventh confinement, and on April 6th, 1860, she was delivered of a lively well-developed girl (the subject of my notes). It was supposed, no doubt unjustly, that the former medical attendant might, by proper treatment, have saved the lives of the lost children, hence his dismissal and my engagement, with the additional responsibilites—the responsibilities not only of assisting the child into the world, but of taking care of it, under unfavorable circumstances, after its arrival. The family history of the child is other-

wise unfavorable; of 11 maternal uncles and aunts, 9 died at various ages, from 16 to 30 years, from phthisis. The mother has had 7 confinements at the full period, and 5 miscarriages, but still enjoys pretty good health. The father is blind, but general health good; there is no history of disease in his family. The surviving sister is about six years of age; she has suffered a good deal from scrofulous sores, chiefly about the feet and legs; had convulsions when teething; has permanent strabismus of the left eye; general physical and mental development on a level with children of the same age.

As one of the usual preventive means under the foregoing circumstances, I strongly urged on the mother the propriety of bringing her child up "by hand," or employing a wet nurse. This advice, however, was not followed. During the first seven or eight months it lived almost entirely on the breast, and to all appearance thrived and got on very well. Vaccination was successfully performed when three months old; at eight months the body is found to be well nourished and well proportioned; complexion and hair rather dark; cranium presents no striking peculiarity in size or shape; cranial bones fixed, posterior fontanelle apparently closed, anterior fontanelle open, but only to about the usual extent; cranial sutures closed, at least cannot easily be traced with the finger. She shows signs of intelligence in the usual childlike way; recognises and calls after several persons besides the members of her own family; can almost sit without support; able to crawl about on the floor; disposition up to the present time generally playful. Febrile excitement and restlessness appeared with the commencement of teething about the end of December, 1860, and on January 2nd, 1861, she had a fit lasting about three minutes. The effects of the fit soon passed off.

January 3rd.—Another fit this morning, lasting about five minutes, described as being severe. I saw her in the afternoon, hands still clenched, head very hot, right pupil dilated, upper gums swollen and red, tongue coated with a white fur; pulse irregular, averages 110. She is quiet and

drowsy; lanced upper gums freely; ordered warm baths, frequently repeated; a full dose of castor oil, and the constant application of cold to the head.

4th.—No convulsions since yesterday morning, but frequent violent fits of screaming, thumbs and feet inverted; bowels well relieved; head cooler, gums healing over; ordered a saline mixture.

12th.—During the last week has had eight attacks of convulsions; they generally come on in the morning, and leave the patient in a state of prostration for several hours, cries a good deal, and during sleep frequently starts up suddenly and screams; has a good deal of sickness and "throwing up" but takes the breast eagerly, apparently as if to satisfy thirst; skin hot, but tolerably moist; bowels irregular. To take a little castor oil and salines as before.

14th.—Had a fit this morning. I was present part of the time. During the paroxysms there was universal strong convulsive action; body and limbs stretched out and stiff; occasional bending of body forwards; hands firmly clenched; feet drawn together; jaws firmly closed; strabismus convergens of both eyes; left pupil contracted to a point; right dilated; breathing obstructed and irregular; lips purplish; head very hot; pulse too irregular and intermittent to be counted; lanced gums, upper and lower. Ordered Hyd. c. Cretâ, two grains every four hours, also a leech to each temple; warm baths, and cold applications to the head.

18th.—No decided fits since the 14th, but a frequent occurrence of what the mother terms "screaming convulsions;" violent screamings with slight convulsive movements about the face, limbs, and body. The "grey powder" was taken three days, producing, as was intended, "dark-green stools." To continue the saline mixture.

24th.—Strabismus of both eyes nearly all day yesterday. Had another fit this morning. During the last week the two upper incisors have made their appearance; the lower are far advanced, and can be felt through the gum. The lower gum has not, like the upper, been tumid and red.

Takes the breast well, and a little lime water occasionally to correct acidity. To-day my attention was directed by the mother to the increasing size of the head. I found the measurements to be as follows:—From ear to ear across vertex, ten and a half inches; from root of nose to occipital protuberance, eleven and a quarter inches; circumference, nineteen and a quarter inches, posterior segment being larger than anterior. Anterior fontanelle enlarged and bulging; it measures antero-posteriorly one and a half inches by, laterally, two inches. It is excessively tender to the touch, and the mother states that, whenever she touches it, a fit of "screaming convulsions" is sure to follow. There is an irregular throbbing in it, not corresponding either with the respirations or the pulse; when she screams or coughs, it bulges out very much. Right pupil larger than the left; strabismus convergens of both eyes; forehead seems to lean a little forwards; pulse still averages about 110; tongue improved; sickness less; bowels kept open by occasional short-courses of grey powder, followed by castor oil. For the last week or two has been fed partly on milk containing a little lime water. Prognosis at this date arrived at in consultation is to the effect that, if the child lives to grow up, it will be "idiotic."

February 24th.—There have been no actual fits since last report (January 24th), but the patient has been subject to frequent jerking convulsive movements and rolling of the eyes during sleep; cries less, takes plenty of nourishment, and sleeps well; likes to be always lying on her back stretched out to her utmost length; cannot be made to sit, even with support; the mother says she cannot bend her child's back; this rigidity has been strongly marked for a considerable time. She makes no attempt to change her position or crawl on the floor; seems to have lost entirely the little intelligence she had. About two months ago she would smile and laugh and recognise her mother and others, now she looks on vacantly and seems to be unconscious of the presence of any one around her. For a time she appeared to be losing flesh, but now the limbs are getting fuller and

firmer. A blister has been kept open for some time at the nape of the neck. Taking grey powder occasionally. The head continues to enlarge; measurements, from ear to ear across vertex, eleven and a quarter inches; root of nose to occipital protuberance, eleven and three quarter inches; circumference, twenty and a half inches; anterior fontanelle, anterior posterior measurement, three and a half inches; lateral, four and a half inches. It is tense and bulging, but much less tender. The posterior fontanelle is now easily recognised, but from the thickness of the hair and integuments, it is not easy to define its edges for the purpose of measurements. All the sutures may now easily be traced with the finger. Forehead projects still more forwards; strabismus of left eye constant; pupils a little dilated, and about equal in size; not insensible to light, but act sluggishly; state of vision doubtful. Nutrition seems to be going on favorably. Takes the breast now only at night; and during the day, milk, weak beef-tea, and now and then a little port wine; tongue clean; pulse about 90.

April 6th.—No convulsions since last report (Feb. 24th); convulsive movements less frequent; cries less, but moans a good deal. She is now a year old, and has seven teeth; the gums have been freely lanced as the teeth came forward. Takes plenty of nourishment; sleeps well and at regular hours. As the head seems too heavy for the body, she is always lying on her back. The body, however, is more flexible than formerly; measurements of the head,—from ear to ear across vertex, thirteen and three quarter inches; root of nose to occipital protuberance, thirteen and a half inches; circumference, twenty-two and three quarter inches, (this is the maximum measurement arrived at). Anterior posterior measurement of anterior fontanelle, four and a half inches; lateral, six and a half inches. It is quite bulging and tense, and almost seems to invite the operation of tapping; pressing it pretty firmly seems to produce no particular effect. Sutures quite open; forehead projects over eyebrows almost at an angle of forty-five degrees.

From the large size of the head the proportions of the face and features seem diminished, and the eyes somewhat buried or concealed. Bodily health continues good, but the mind or intelligence is still a perfect blank; takes no notice when the urine or fæces come away; all the commonest instincts are in abeyance, except those of eating and drinking. Makes strange unmeaning noises, accompanied with awkward movements of the hands; able to eat solid food; no difficulty in swallowing, and there is very little dribbling of saliva, showing that the nervous and muscular connections of the mouth and fauces are unaffected. Taking citrate of iron and cod-liver oil, small blisters are still kept open at the nape of neck, and also behind the ears.

July 15th.—Doing favorably; has ten teeth; the last three appeared without convulsions or other disturbance of the health. Body has grown considerably, whilst the head has diminished in size. Was weaned about a month ago, and has since lived like the rest of the family, or nearly so. The blisters healed up, and others have been applied. Measurements of the head: from ear to ear across vertex, thirteen and a half inches; root of nose to occipital protuberance, twelve and a half inches; circumference twenty-one and a half inches; anterior posterior measurement of anterior fontanelle, three and a quarter inches; lateral, six inches. It is soft and rather baggy to the touch, and only becomes tense during coughing or sneezing; it then (according to the mother) "starts up." With the head and back supported she is now able to sit; when the support is removed she rolls on to her side and gradually resumes her favorite posture—lying on her back. Has no notion whatever of using the legs and feet. Instead of being rigid, the body and limbs are now rather lax. General health good. Taking cod-liver oil.

January 1st, 1862.—It is now twelve months since the first attack of convulsions. Since the last report in July she has had two fits, one in September and again in August. Each fit was accompanied with a good deal of sickness and diarrhœa, and as she was well again in a day or

two, I considered that on these occasions the brain was only secondarily affected through intestinal irritation. In other respects she has steadily improved. The head has become smaller, and the body larger. She has sixteen teeth. Measurements of the head: from ear to ear across vertex, thirteen inches; root of nose to occipital protuberance, twelve and a quarter inches; circumference, twenty-one and a quarter inches; anterior posterior measurement of anterior fontanelle, two inches; lateral, five and a quarter inches. it feels firm and is thickly covered with hair. The posterior fontanelle and the sutures have nearly closed. The forehead still leans forwards. She has commenced to show some signs of intelligence by imitating, in an imperfect way, almost every sound she hears. When any one is speaking, she follows the speaker in a mumbling way, and generally brings out the last word of the sentence tolerably distinct. When any one coughs near her she coughs directly, and if she hears any one sneeze, she tries to imitate it, and not succeeding, laughs at the failure; but as yet she does not seem to recognise anybody; that is, to distinguish one person from another. Every part of the head seems to have contracted, except at a line drawn vertically, corresponding to the parietal eminences; the latter project very much, and give the head the peculiar appearance commonly observed in these cases. The *anterior* fontanelle seems to be closing up much more rapidly in the *anterior posterior* direction than laterally. Has still no notion of using the legs for the purposes of standing or walking. The blisters have been allowed to heal up.

April 6th.—She is now two years old. There have been no fits since last report, nor anything else with regard to the general health to call for notice. In size and shape the head appears to have undergone very little change, whilst the body has grown considerably. The back molars have not yet appeared. The measurements of the head are the same, with very slight variations, as those given in last report. The anterior fontanelle measures half an inch by two inches and a half. Latterly it has been closing very

rapidly; as there has been no approximation of bones, no perceptible reduction in the size of the head, the closing process must be due solely to ossification. The imitative faculty becomes more and more developed, and the imitation more perfect. A short time ago I suggested that she should be taught, verbally, the alphabet, and much to the surprise and delight of the parents, she was soon able to pronounce every letter, her greatest difficulty being with the letters *d*, *g*, *q*, *t*, and *w*. Begins to recognise those around her. The strabismus of the left eye seems to have become permanent. The legs are comparatively small, but still pretty well developed, and they have also plenty of motive power, but unfortunately this power has not as yet been applied to its proper use in attempts to walk or stand alone.

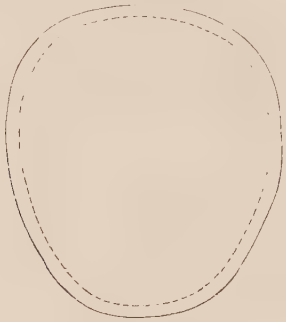
November 20th.—During the last six months the patient, as regards the limbs and body, has grown considerably. The head has seemed to the friends to be getting much smaller, but the measurements prove that this has been only apparent, probably from the increasing size of the body. It will be seen that the measurements vary only a few fractions less than those taken nearly a year ago. They are as follows: from ear to ear across vertex, twelve and five-eighth inches; root of nose to occipital protuberance, twelve inches; circumference, twenty-one and one-eighth inches; the posterior segment being two and a half inches larger than the anterior. The fontanelles and sutures have quite closed up. The projections of the parietal eminence and of the forehead are still very observable; that of the forehead, however, is less than it was a few months ago. The eyes are not so much concealed. There is also less of the vacant semi-idiotic stare about them, and they would look tolerably natural were it not for the persistent strabismus on the left side. Pupils generally dilated, contracting slowly under a strong light. The last molars completing the first set of teeth made their appearance in October, without in any way affecting the health. The body and arms are well nourished and well proportioned, but the legs are small. The hands are used

only in movements without aim or design. If anything is placed in them she only retains it for a few seconds. Has a little more notion of using the legs. A short time ago, when she was held up from the ground, the legs dangled from the body quite helpless and useless, and generally with one foot crossed over the other; now she tries to feel the ground with her toes, and the mother says that on two or three occasions she has also placed her heels on the ground and that she is in a fair way of soon standing alone.

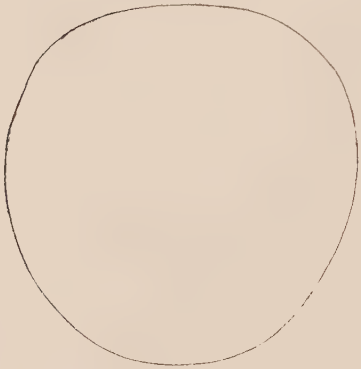
July 20th, 1863.—During the last nine months the patient, with the exception of two or three unimportant ailments, has progressed favorably. Although in the last report the fontanelles and sutures were stated to be closed, the head now measures a trifle less. This is probably owing to a more advanced stage of ossification in the cranial bones. Taking into consideration the active growth going on in the body generally, this arrest of growth and even diminution in the size of the head is an interesting point, and as regards the patient, satisfactory. Measurements from ear to ear across vertex, twelve inches; root of nose to occipital protuberance, twelve and a quarter inches; circumference, twenty-one inches. She is still unable to walk or stand alone. Makes more use of her hands, and is able, though rather in a clumsy way, to guide food to her mouth. She is now about three and a half years old. Her mental condition has decidedly improved. At first there was merely a parrot-like imitation of sounds—sounds without ideas, and it was remarkable, and at the same time a source of some amusement to those around her, that this imitative faculty or propensity was at one time so irresistible that she could not hear any sound without trying to imitate it. The propensity still exists, but not to the same ludicrous extent. Advantage has been taken of it to teach her a great many words, and even nursery rhymes. She has a little musical talent; accompanied by others, she sings several popular airs. Showing that she connects ideas with sounds, she points out by

Diagrams of the Hydrocephalic Head looked at from above, showing its variations in size and shape during the progress of the disease.

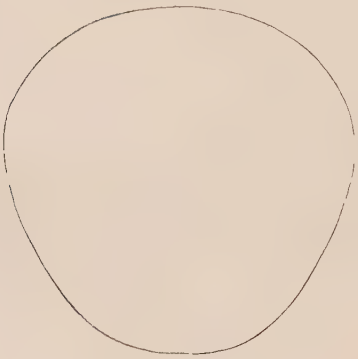
Dotted lines showing the ordinary size of head at eight months.



First stage.

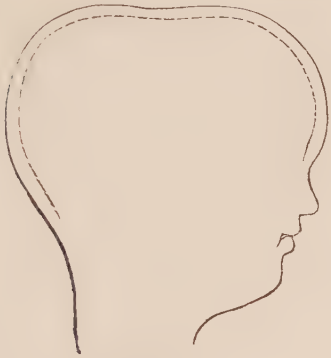


Second stage.



Third stage.

Diagram profiles of the Hydrocephalic Head.



First stage.

Second stage.

Third stage.

name the inmates of the house, also articles of dress, furniture, &c. She has also been taught to ask for the chair. She is able to say the alphabet from beginning to end without assistance, and to count the numerals up to twenty. She is playful and shows signs of affection; opens her mouth and shows her tongue when asked to do so in a more sensible way than many children of the same age who are supposed to have all their senses about them. With all these signs, however, of even precocious mental powers, her general aspect and manner, the large size and peculiar shape of the head, the strabismus, the occasional strange noises or grunts that emanate from her, her helpless condition, combined with a peculiar expression of countenance, would at once impress any one with the idea that she is at least semi-ioditic, or as the mother and friends say of her, that she is not like other children.

Remarks.—This case is of interest in a medical and psychological point of view. Judging from the family history, it is probable that the original meningeal inflammation was partly tubercular. This inflammation must have extended early to the brain, and produced its usual effects on the brain-substance, and on the intellect.

As there are differences of opinion as to whether we can divide hydrocephalus into internal and external—some maintaining "that either by communication or by endosmose the effusion always becomes general;" others "that the fluid is sometimes found only in the ventricles, and sometimes only in the general arachnoid cavity."—I wish to draw attention to the extreme tenderness of the anterior fontanelle observed in this case during one stage, and its painless condition and great bulging in another, and also to the fact that the functions of the surface and upper parts of the brain were disturbed, more than those of the base of the brain, and to propose the question whether these may be considered indications of an external hydrocephalus? Anatomically viewed, there appears to be no reason why the two forms should not be possible.

It has occasionally been stated by authors, that the hydrocephalic head has been observed to lessen in size; by actual measurement, however, our knowledge on this point is made more exact. It will be seen that the quantity of effused fluid during the earlier stages of the case must have been large, and that a large proportion eventually became absorbed. The head was abnormally large when the first measurement was taken; the last measurement being about equal to that of an average adult female head. The following dates placed together will perhaps make this plainer:

January 1st, 1861, circumference of head	.	.	$19\frac{1}{2}$ inches.
April 6th, 1861,	,,	.	. $22\frac{3}{4}$,,
January 1st, 1862	,,	.	. $21\frac{1}{4}$,,
July 20th, 1862	,,	.	. 21 ,,

(The variations in the shape as well as the size of the head are shown in the diagrams.)

The rather unusual features of the case are—1st. That the child should have survived such severe brain and meningeal symptoms; in fact, a bad attack of acute hydrocephalus; children mostly die of this affection in twelve or fourteen days. 2nd. So large a head is seldom met with in infancy, except in connection with congenital hydrocephalus. 3rd. The little interference throughout the illness with the nutrition and growth of the body. 4th. The perfect annihilation of all signs of intelligence, and its reappearance after a blank of several months in a low form; namely, that of imitating sounds, followed at a later period by mental manifestation of a somewhat higher order. The brain slowly relieved from pressure, allowed the mental faculties to come into play.

The treatment most relied on was the administration of short courses of mercury, and the application of blisters to the nape of the neck and behind the ears kept open for a very long time. As the grey powder was well borne by the stomach, inunction by mercurial ointment was not employed. Tapping the head was not employed for two

reasons—1st. Statistical accounts are very unfavorable to the operation. 2nd. The few cases in which benefit has resulted from tapping have been those in which the effused fluid appeared to be more the result of passive exudation than of active inflammation; when it is caused by the latter condition, there are sufficient grounds for hoping, even when the accumulation is considerable, that it may become absorbed.

Dr. Thomas Ballard said that Dr. Madge's paper contained a history in detail of the ordinary course of a case of chronic hydrocephalus, many examples of which might be seen in any of the institutions devoted to the reception of idiots. He did not agree with the author in attributing the disease to any diathetic error inherited from the parents, neither did he believe that the irritation of teething had any effect in causing the disease. Indeed he was quite convinced that the doctrines usually held and taught regarding the etiology of convulsive diseases of infants were erroneous, and consequently the treatment deduced therefrom not the best. He believed that œdema of the brain, which was the pathological condition existing in all these cases, resulted from a state of mal-nutrition, the consequence of a disorder of the stomach and intestines, which was caused by an excessive secretion of gastric juice, continually produced by reflex action when a child has to suck excessively to obtain its food, and which effort he designated "fruitless sucking." The green diarrhœa of infants, and the chronic state of diarrhœa which always precedes hydrocephalus, are the evidences of the existence of this injurious condition. The treatment deduced from these views is very simple, and eminently successful. It consists of arresting the diarrhœa by attention to the sucking, feeding the child well upon milk, and treating the symptoms of pressure on the brain in their early stages by the abstraction of blood by leeches; the symptoms indicating the use of leeches being repeated acts of vomiting, or vomiting during sleep, or any form of fit. He was of opinion that had the cases described in the paper been treated on similar principles the result would have been as favorable; he felt that he was justified in making protest against views which he had worked honestly and earnestly to elucidate, and had brought under the notice of the profession in the same spirit, being designated "crotchets." He earnestly invited attention to them, and had no doubt that if he were allowed the time and opportunity he would be able to demonstrate their truth to any of the Fellows of the Society.

Mr. Owen, in agreeing with Dr. Ballard in regard to some of the points on the feeding, differed from him in the suggestion of free and continuous leeching in a case like this, where a tubercu-

lar diathesis evidently existed. Mr. Owen considered that the Society was indebted to Dr. Madge for his report, and congratulated him on the favorable termination of the case.

Dr. Barnes submitted that an absolute etiological theory ought to apply to all the cases of the disease. Now, the accoucheur knew well that hydrocephalus was a congenital disease; that it arose *in utero.*

Dr. Routh must say that he believed Dr. Ballard's views to be important and true in many cases. He had repeatedly seen fruitless sucking from an exhausted mother, or from the sweetened piece of flannel to keep them quiet by ignorant nurses, produce diarrhœa and green stools, and, after a time, head symptoms and hydrocephalus. But he did not say this was *always* the result observed. Dr. Madge's paper was important as illustrating—first, the effect of a strong tubercular diathesis in inducing hydrocephalus, spite of his skilful supervision and treatment; secondly, as proving by actual measurement the marked diminution of the fluid effused. The diminished size of the head (as indeed at one time was stated by the parents of this very girl) is too often erroneously inferred, because, owing to the growth of the other parts of the body, it seems to be smaller. He thought, however, these cases would bear calomel to a larger extent than given by Dr. Madge. He (Dr. Routh) instanced an example similar to the present, in which idiocy was impending, where ten grains of calomel one day and five the next were given successfully for three weeks. A cure resulted. The young man was now alive and full grown, and with intellect unimpaired. Without recommending these excessive doses, still he thought full doses of calomel were often well borne in chronic hydrocephalus, appearing to act in this affection chiefly through the kidneys.

Dr. Graily Hewitt congratulated Dr. Madge on his paper, and on his success in the treatment of the case. Some years ago he had himself succeeded in arresting the disease in its acute stage, and the patient completely recovered. The remedies he had used were very extensive counter irritation over the scalp by means of tartar emetic, and liberal administration of stimulants.

Dr. Madge, in reply, wished to state that he had not brought the case forward as anything extraordinary, but simply as an illustration of a rather common form of disease. Dr. Ballard had given an opinion that the condition of the patient was caused by "fruitless sucking" and by "overlooked or neglected diarrhœa," and that the treatment had been altogether wrong. Dr. Madge considered there were no grounds whatever for such an opinion. It would be difficult to say what amount of so-called "fruitless sucking" had taken place in this or in any case, but it was a mere assumption to say that it had taken place at all, and a still more groundless assumption—as it was removed from all scientific and

reasonable probability—that "fruitless sucking" could have caused such grave symptoms as those recorded in the paper. These symptoms could be explained on much more rational principles. The evils of "fruitless sucking," he thought, had evidently been greatly exaggerated. The theory had doubtless been erected on a few exceptional cases. As to diarrhœa, there was a marked absence of it in this case; aperients had been frequently necessary—a state of things usually accompanying nervous disorders, or a predisposition to them. He had heard nothing that evening which would induce him, in a similar case, to deviate much from the plan he had adopted. There was, no doubt, much to deplore in the present condition of his patient, but the result was better than could have been anticipated under the circumstances.

November 4th, 1863.

Dr. BARNES, in the Chair.

Present—50 Fellows and 10 visitors.

Dr. Ashford, Birmingham; Mr. Hammet Hailey, Newport Pagnell; Mr. W. Murphy, Willingham, Gainsborough; and Mr. R. B. Walters, were elected Fellows of the Society.

A CASE OF STONE IN THE FEMALE BLADDER. VAGINAL LITHOTOMY.

By I. Baker Brown, F.R.C.S.,

SENIOR SURGEON TO THE LONDON SURGICAL HOME.

Miss D—, æt. 44, from Brompton, Kent, admitted into the London Surgical Home, September 19th, 1863.

History.—Eight years since, she first noticed a sudden cessation in the stream of water during micturition, pain attending the close of the effort when the bladder was nearly or quite empty. Abundant deposit in the urine, which was an intensely bright-red colour; numbness in the legs and thighs. The last two years she has been much worse, and within sixteen months has passed large quantities of small white particles of stone, sometimes with the urine, but often after having emptied the bladder. There has been a very copious white sediment for a considerable time; great pain of a bearing down character; forcing efforts to empty bladder, and an expulsion of bloody urine.

Examination.—A stone of very large size was detected in the bladder.

October 15th.—The patient being under chloroform, a grooved staff was introduced into the bladder, and an incision from neck of the bladder to within half an inch of the os uteri was made through the vagina and bladder, and the stone removed by a scoop passed behind it (the weight of the stone being 2 ounces 5 drams). The wound was immediately closed by seven silver wire sutures simply twisted.

22nd.—Sutures removed and the wound found to be perfectly united.

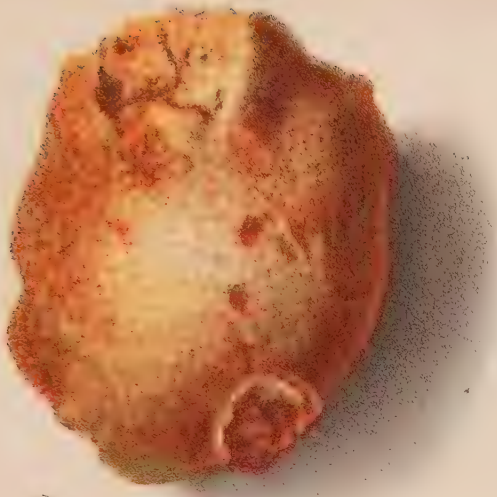
The patient recovered without a single bad symptom.

Dr. Greenhalgh stated that he was present when Mr. I. B. Brown extracted the stone exhibited to the Society by vaginal lithotomy, and that he also saw the sutures removed a week afterwards, when the wound had perfectly healed.

Dr. Greenhalgh exhibited a stone which had been removed from a patient under his care in St. Bartholomew's Hospital.

The patient was a married woman, who had had two children. She was admitted for a vascular excrescence at the lower margin of the meatus urinarius, which was destroyed by the galvanic cautery. As she, however, still continued to complain that she could not "hold her water," and that at no time during the last four or five months could she retain more than a teaspoonful of urine, and that considerable straining, followed by a slight discharge of blood from the bladder, had occasionally occurred, a sound was passed into that viscus, when a stone of considerable size was detected. On the 23rd of last October, the patient being under the influence of chloroform, Mr. Lawrence rapidly and easily dilated the urethra with Weiss's dilator, when the stone being seized in its long axis by the calculus forceps was quickly extracted. The stone, of an oval and flattened shape, weighed one ounce and five drams, and was composed of a small nucleus of oxalate of lime, surrounded by concentric layers of lithic acid, and coated in parts by phosphatic deposits. On the 29th, six days after the operation, the patient was in perfect health, and could retain her water for three and four hours.

Dr. Greenhalgh considered the case very interesting in two points of view; first, in illustrating how large a stone can and may be extracted through the female urethra without any laceration; and, secondly, as demonstrating that dilatation of the urethra, rapidly effected, did not produce any functional derangement of that canal.



ON COMBINED EXTERNAL AND INTERNAL VERSION.

By J. Braxton Hicks, M.D., F.R.S.,

ASSISTANT PHYSICIAN-ACCOUCHEUR, AND ONE OF THE LECTURERS IN MIDWIFERY AND DISEASES OF WOMEN AT GUY'S HOSPITAL; PHYSICIAN TO ROYAL MATERNITY CHARITY, AND ROYAL INFIRMARY FOR DISEASES OF WOMEN AND CHILDREN, ETC.

In the 'Lancet' of July 14th and 24th, 1860, I described a new method of turning the fœtus in utero during labour; and gave five cases of placenta prævia in illustration of its peculiar applicability to that formidable complication of labour. In the same journal, February 9th, 1861, I also gave cases of other forms of abnormal labour to which I had successfully applied it. I chose this mode of first bringing it before the profession, rather than laying it at once before a Society like the present, because as it was then a new subject its merits could not then be discussed with any satisfactory result; but having ever since that time tested and proved its value in my own practice, and knowing it has been found successful in that of many others, I feel that a more free and intelligible discussion of it can now be entered upon.

And first of all I must detain you a few moments to consider the state of the operation of turning of late.

Till within the last few years you are aware that, whether it was determined to bring down the head, the breech, the knee or foot, the whole hand had to be introduced into the uterus in order to seize the part to be so brought down.

In regard to *cephalic version*, it was very seldom adopted on account of the difficulty of grasping the head, and retaining it at the os uteri.

In regard to the other forms, foot-turning has nearly altogether taken the place of breech-turning, and as you already know, the practice of bringing down one knee or foot has superseded that of securing both, for reasons I need not here enter upon.

But all these methods required the entrance of the whole hand, and generally part of the arm, within the uterus, whereby the contents of the uterus are to a greater or less degree augmented, and increased irritability set up; giving rise in many cases to much suffering and difficulty in operating. But, in addition to this, many cases occur in which it is highly desirable to alter the position of the child, yet from the contracted state of the cervix it is found impossible for the hand to enter the uterus. Thus very valuable moments, hours, and even days have passed away without the possibility of assistance; the practitioner being the while obliged to stand with folded arms till the opportunity of entering the cervix had arrived.

In a few cases, however, this delay had been occasionally shortened by pushing the child round by the finger, passed through the os uteri, which plan was practised by the late Dr. Collins, of Dublin, and by Dr. Robert Lee, as shown in his cases of 'Clinical Midwifery.' But it was only now and then that the practice was successful. When the child failed to glide round, there was no help for it but to wait; and there must, it seems to me, have been some risk in inducing arm presentation instead. Still the practice was occasionally successful, and so far it was very satisfactory.

Dr. Robert Lee has also pointed out that in some cases of transverse presentation, it is not necessary to pass more than two fingers into the os uteri in order to seize the knee; which plan he styles "two finger turning." But in Germany, for some years past, it has been shown by Wigand,[1] Mattei, Stoltz, Martin, and Carl Esterle, that it is possible to rectify entirely from the outside abnormal positions of the fœtus, and by the last-mentioned two professors it has been employed in many cases.

But Carl Esterle, although it appears he had even during labour employed it with success, principally confined himself to the rectification of these abnormal presentations some weeks previously to full term; and Martin so far

[1] See Appendix, p. 265.

limits himself in its use, that he insists—1st. That immediate delivery be not called for; 2nd. That there be a capacious pelvis; 3rd. *No* active pains; 4th. That the child be living.

Now, it is very evident that these conditions cannot be granted if we desire to employ it in the midst of labour, or in cases of urgency. It is true that one hand was introduced into vagina and used to direct the part which was being pressed down into the proper position, but the whole motive power was in the outer hand.

To perform complete version entirely from the outside requires considerable opportunities of practice, more than falls ordinarily to the fate of practitioners; and even in the most skilful and practised hands it has much of uncertainty; and what is more, for practical purposes it will fail us when we most stand in need of it, namely, in actual labour; for few medical men have the opportunity, in private or outdoor practice, of carefully examining the condition of the presentation before labour has commenced; and even did they possess every facility it would be very impracticable, and I may say to a certain extent unnecessary; for it is evident to any one who has taken the trouble to examine the position of the child before birth, that it is frequently altering its position in utero, more commonly oscillating between the transverse and cephalic; and that it is not till the early pains set in that its presentation is finally fixed.

Indebted, then, to the Germans for the knowledge of the important fact that the child can be turned in utero from the outside; and to our own countrymen for showing us the possibility of pushing the child round by means of one or two fingers passed through the os, I will endeavour to show how that by the simultaneous combination of these two plans, each acting upon opposite ends of the fœtus, a degree of certainty and celerity may be obtained, of which each alone is entirely incapable; and I shall be also able to show that some other advantages can be obtained, which do not directly depend upon the act of turning.

I do not think I shall be uselessly detaining the attention

of this Society if I here recapitulate the principles upon which the plan I here allude to is founded; because they will show that success in it is not a matter of mere chance, but that, from the nature of the conditions, there is every probability of accomplishing it.

The first point which must be borne in mind is, that the child in the uterus is easily moved about by any impetus acting from without.

This I shall not stop a moment to prove. Take any pregnant woman near her full term, lay your hand on the abdomen, and press upon any prominent part of the child, you will find it recede till you have considerably, if not completely, altered its position.

This mobility is of course most complete when the membranes are perfect; it is less so when the waters have partially escaped; but it is an error to suppose that there is little or no movement when they have wholly passed off. The motion in this latter case is a *gliding round* within the slippery membranes; while in the first state it is a *floating* in the fluid. The condition in which the mobility of the fœtus is most curtailed is when the waters have escaped completely and for a considerable time, and an irritable uterus tightly clamped around. Relieve that irritability by chloroform or otherwise, and you will find that the absence of the waters has not destroyed the mobility of the fœtus within the uterus.

The second point is this—that when the child is placed transversely in the uterus, the knee in its natural position, at the umbilical region of the child is nearly immediately over the os uteri, and therefore within a finger's length of it; and that also in the natural position the foot is close to the breech, and will be found upon it when that end of the child presents. Hence should we succeed by any means to place the fœtus transversely in the uterus, the principal difficulty in version is overcome.

But there is a *third* fact, which it is important to recognise; namely, that when the child is transversely placed in the uterus, that is, with its long axis at right angles to that of

the uterus, there is a great tendency for it to assume a position in which their long axes will become coincident; or in other words, when the child is transversely placed, a very slight force will be sufficient to determine which direction the head shall take, either back to the os or upwards to the fundus. This is very apparent in practice, and its reason is palpable.

I will now proceed to describe the mode by which I effect podalic version. We will suppose a case where everything is natural; the os uteri dilated to admit one or two fingers, membranes perfect, and the face towards the right side.

The patient may be placed in the ordinary obstetric position.

Fig. 1.

Having lubricated my left hand, I introduce it as far into the vagina as is necessary in order to reach a finger's length within the cervix—sometimes it requires the whole hand, sometimes three or four fingers will be sufficient in the vagina. Having clearly made out the head and its direction, whether to one side or other of the os uteri, I place my right hand on the abdomen of the patient towards the fundus; I then endeavour to make out the breech, which is seldom a difficult matter. The external hand then presses gently but firmly the breech to the right side; as it recedes, so the

Fig. 2.

hand follows it either by gentle palpation, or by a kind of gliding movement over the integuments, while at the same

time the other hand pushes up the head in the opposite direction, so as to raise it above the brim (Fig. 1).

It may here be mentioned that when the head has descended a considerable distance into the pelvic cavity or more than half way through the os uteri, it is scarcely possible to lift it above brim, especially if the uterus be active.

When the breech has arrived at about the transverse diameter of uterus, the head will have cleared the brim, and the shoulder will be opposite the os (Fig. 2). That is pushed on in like manner at the head, and after a little further depression of the breech from the outside, the knee touches the finger and can be hooked down by it (Fig. 3). It very frequently happens when the membranes are perfect, that as soon as the shoulder is felt, the breech and foot come to the os in a moment, in consequence of the tendency of the uterus to bring the long axis of the child coincident with that of its own.

Should it therefore be difficult to hook down the knee, depress the breech still more, and it will be almost always the case that the foot will be at hand.

It will sometimes render turning more easy if, as soon as the head is above the brim, we pass the outside hand beneath it, and push it up from the outside alternately with the depression of the breech. All this can generally be performed in a much less time than I have taken to describe it, although in some it requires gentle, firm, and steady perseverance, with such a supply of patience as is always demanded in obstetric operations.

If the os will only admit one finger, and the foot cannot be brought through in consequence, it can yet be retained at the os by pressing it with that finger against the inner surface of the os; the most convenient part being against the anterior part, because the pubes will assist in supporting the pressure, while at the same time, in most persons, unless very stout, the hand pressing externally above the pubes is capable of assisting us materially in retaining the leg in that position, and securing the altered change, ready for us to take advantage of it, should the case so require, as soon

as the os dilates sufficiently; and the mere retention of the leg here is of considerable value, for, as I dare say others here can bear me out, in cases of turning, even when we cannot effect turning immediately after having seized one of the limbs, yet the holding on to that part, and thereby fixing it, ultimately produces such an improved relationship between the uterus and its contents, that the after operations succeed more easily. This is doubtless partly by the action of the uterus and partly by a gentle and insensible traction on the part at the same time.

Should the child face towards the left side, the only difference required in operating is, that the breech be pressed towards the left side and the head to the right.

Supposing the position cannot be distinctly made out,

Fig. 3.

in which direction will it be advisable to press? I would then say, provided the head is placed considerably off the centre of the os, press the head to the side to which it inclines, and the breech in the opposite.

But should the head be tolerably central, and we are also unable to make out the position, what have we to guide us in order that we may press in the best direction?

This, at first sight, might appear a difficult question to answer, but you will find much assistance from following considerations.

If we take the relative frequency of the occurrence where the back is towards the left side (first and fourth presentations), compared with other presentations, we shall find that, according to Naegele's computation, it will occur in about 75 per cent. Other observers range from 65 to 80 per cent., consequently if we press the breech towards the right side and the head to the left, we shall be acting in the best direction in these proportions.

But after all it is not so very important practically, for even should the child have been moved in the direction to which the back presents, yet when the child has assumed the transverse position, one of the sides will incline more or less to the os uteri, and thereby bring the knee within fingers' reach of that opening. But though it may not be absolutely necessary to know the precise direction of the face, yet it is, of course, very desirable that it should be made out in every case where possible.

And here will be the proper place to make some remarks concerning the influence the uterine contractions have upon our efforts in this form of version. It will be seen on reference to the list of impediments in accomplishing it (see pp. 256-258), that when the uterus is tightly contracted around the child, there is very little chance of our succeeding. Of course version is easiest when there are no pains, and consequently the intervals between the pains are the fittest for employing our efforts, remaining at rest when they come on. When the patient is highly irritable, and the pains forcing and frequent, the difficulty is very great, but there are numerous

states between this and their complete absence where version may be performed without difficulty between the contractions. It is of course difficult to lay down any absolute rule; perhaps the surest guide is the frequency of the pains. If they occur with scarcely an interval it will be very difficult to diminish the uterine irritability. But as one of the chief advantages of this mode of turning rests on its capability of being employed at an earlier period than the older forms, the uterus will generally be found in a state which will not interfere with this practical application.

When the pains are very severe they have a tendency to undo what has been done during their interval, and this untoward effect is increased by voluntary forcing. Still in these cases version may be managed in the intervals, because, as the operation does not require much time provided a fair amount of relaxation occur, we may alter the position of the child before the next pain.

In regard to transverse presentations, it has already been pointed out that in their early stage it is really seldom necessary to employ more than one or two fingers within the os, in order to hook down the knee; should that, however, not be the case, then the best manner of proceeding, if we determine upon podalic version, will be simply to depress the breech from the exterior, as has already been described; if further assistance be required to produce that change, to push on the elbow as before mentioned, and the head up from the outside. This latter procedure is seldom required while the membranes are perfect.

In the early stage of transverse presentation the case, generally speaking, will be the easiest managed of any requiring version, and in it the depression of the breech from the outside is so effective that, as soon as the abnormal condition is made out, we possess the power of rectifying it; and I think I am justified in saying that in such cases the old method of introducing the whole hand need very seldom indeed be resorted to, for the simple depression of the breech will, in almost all cases, bring the knee close to the os uteri. But there are some forms of transverse presen-

tation where it is exceedingly difficult to effect turning by the method I am describing. These are, where the child is more or less doubled upon itself; for instance, in a case where the arm is prolapsed outside the vulva and the thorax, jammed down into the cavity of the pelvis, while the head and breech are in the uterus—in these the uterus is tightly clamped round the child, rendering it next to impossible to move the breech by any external pressure down to the os.

From my own experience, and from what we might expect from the nature of such cases, I think it advisable to introduce the hand into the uterus in the ordinary manner. At the same time, I can say that the bringing the breech down as far as it can be done before the hand is passed within will very frequently bring the breech so near that it requires the passage of only the hand within the os. In the worst cases much more advantage can be gained by the external depression of the breech than is generally supposed. The use of the external hands in these forms of transverse presentation has thus been alluded to by Dr. Simpson in the 'Obstetric Memoirs:'[1]—

"The external hand fixes the uterus and fœtus during the introduction of the internal one; it holds the fœtus *in situ* while we attempt to seize the necessary limb or limbs, or it assists in moving those parts, when required, towards the introduced hand; and it often aids us vastly in promoting the version of the child, after we have seized the part which we search for. Indeed, this power of assisting one hand with the other in different steps of the operation of turning form the principal reasons for introducing the left as the operating hand." I would go farther than this, and urge that the depression of the breech precede the introduction of the hand into the uterus, with the intention of diminishing, as much as possible, the portion of hand to be introduced.

Where the arm has not descended so low as I have supposed above, but yet has fairly come into the vagina, it will be advisable always to endeavour to return it on to the

[1] 'Obstetric Memoirs,' 1856, page 638.

chest of the child, and then to push the child onward in the direction of the head, depressing from the outside the breech if we intend podalic version.

And this brings me to the consideration of the manner in which cephalic presentation can be effected by the combined external and internal manipulations.

Perhaps it is in changing the position of the fœtus from the transverse, and its varieties to head presentation, that the advantage derived from the external hand is the most marked. Still here the use of the inner hand as a motive power may be very great. Before Wigand it was considered necessary to seize the head by the hand, and draw it into its place, pushing as much as possible the shoulder towards the direction of the feet. The difficulty of obtaining a good hold of the head, and of retaining it in its natural position, was a great reason why it has been seldom employed. But the following plan I can recommend to you as easy and, as far as I have employed it, generally efficacious. We will suppose a case where the hand has not passed through the os.

Introduce the left hand into vagina as in podalic version; place the right hand on the outside of abdomen, in order to make out the position of fœtus, and the direction of the head and feet. Should the shoulder, for instance, present, then push it with one or two fingers on the top in the direction of the feet. At the same time pressure by the outer hand should be exerted on the cephalic end of the child. This will bring down the head close to the os; then let the head be received upon the tips of the inside fingers.

The head will play like a ball between the two hands; it will be under their command, and can be placed in almost any part at will. Let the head then be placed over the os, taking care to rectify any tendency to face presentation. It is as well, if the breech will not rise to the fundus readily after the head is fairly in the os, to withdraw the hand from the vagina, and with it press up the breech from the exterior. The hand which is retaining gently the head from the outside should continue there for some little time, till the pains have ensured the retention of the child

in its new position, by the adaptation of the uterine walls to its form.

The ease with which cephalic version was effected by these means, in one of the cases to be mentioned was such, that only half a minute was required. But if any unseen circumstance oppose difficulty to cephalic version, it will still remain open to us to adopt podalic in the same case. All that is required is to place the hand on the opposite end of the child, and depress it as has been already shown, pushing the head and shoulder from within; while the fingers within are ready to hook down a knee or foot. This took place in one of the cases about to be recited.

From the opportunities I have had of judging I may lay it down as a good rule, that, in neck and transverse presentations, where we have no reason to hurry, and where all things seem otherwise favorable, we should first of all endeavour to induce cephalic presentation; and then, should there be any difficulty in accomplishing it, to change our plans to podalic, which merely requires, as just shown, the action to be reversed.

If in these malpresentations the fœtal hand protrude, it is even then quite possible to induce cephalic presentation, provided the thorax has not yet descended (as already mentioned). We must first in this case carefully replace the presenting hand into uterus, and then proceed as just indicated.

The advantages which accrue from the institution of cephalic presentation, in a case of labour, without any other complication than that of malposition of the fœtus, is admitted by, I may say, all prudent practitioners, and the readiness with which it can in many such cases be effected by the above plan induces me strongly to recommend its adoption. Of course I mean with an ample pelvis, or small head, for in many cases transverse presentation is the result of malformed brim.

I have not at present had an opportunity of changing a breech into cephalic presentation, but the same rules, altered to the nature of the case, will apply as in changing

cephalic into breech, though no doubt there will be more difficulty in finding in which direction the child faces.

If I have been able to carry the attention of the Society thus far, and if I have been able to bring before your minds the practicability of the operation, then I think I shall have but little difficulty in impressing upon you the benefits to be gained by a method which does not require the presence of the hand, which does not ask for more than two fingers in the uterus.

Whether we employ it for cephalic or podalic version, I need only mention the advantages of early turning in such cases as neck, shoulder, and transverse presentations and their varieties.

It is scarcely needful to point out the benefits it gives us when early delivery is wished for, as in convulsions such as occurred in a case to be related. The introduction of the hand into uterus during convulsions, even when the os is dilated, is attended frequently with much risk to the integrity of the uterine walls, and is therefore to be avoided as much as possible.

In many cases of convulsions it is now in our power to turn, without those risks, and at a time when the os is not dilated sufficiently to admit the hand; by which means we can avail ourselves of the earliest dilatation of the os, and can also assist it by gentle traction upon the leg, which will thus act as a dilator.

In placenta prævia, again, I have found this plan peculiarly useful, as I have already shown in the 'Lancet,' and now adduce further examples. Those cases of this condition where the cervix is not larger than will admit a finger or two, and where the bleeding is still great, give the practitioner the greatest amount of anxiety possible. It is these cases which not long since compelled him to wait for hours whilst endeavouring to dilate the os; or to content himself by a firm plug in the vagina to press on the cervix while the head is attempted to be pressed on the placenta from within, by pushing down the fundus.

Without entering into any description of the plans which

have of late been adopted—for this is not the place to enter into so important a question—I will content myself with describing how I have operated without any hæmorrhage externally or internally during the process of delivery. If I can feel the membranes and find the head presenting, I then proceed as in an ordinary case before described. When the foot has arrived at the os, I rupture the membranes, draw the foot and leg through as far as they can descend without force. By exerting gentle traction with merely the weight of the arm, we have a firm plug on the bleeding part. I retain hold of the leg in this manner; and thus as the os expands, the leg by its conical form makes an excellent plug, as does also the breech when it has entered the os.

When this point is secured, most valuable time is at our command, and our endeavours should be devoted to restore the vital powers, weakened and in some cases almost annihilated by the previous loss. In extreme cases—I am sure the Society will agree with me—the worth of this period can scarcely be over estimated.

Labour pains are now waited for; and the case treated as is proper in breech and footling cases.

Generally, the pains arrive in an hour or two, but should they be delayed beyond this, it is permissible, should there be no great depressions of the powers, to give secale; and here I wish to urge the importance of not delivering the child with rapidity after the accomplishment of version, whether it be performed by the old or the combined method.[1] This remark applies particularly to those cases of placenta prævia, and more especially where the previous flooding has been severe. When so much of the child has passed through the cervix as its dilatation will allow of, a gentle traction on it, as above noticed—merely the weight of the arm—will, I believe, always restrain any further bleeding. The form of the child, being conical from the foot to the shoulders, adapts it admirably as a plug to the yielding os and lower part of the uterus, which it must be remembered would not

[1] This was well insisted upon by Wigand.

then preserve its globular form, but assume more or less the form of the fœtus.

However, should there be reason to fear hæmorrhage was going on internally, then the delivery might be hastened; but I have in all the cases narrowly watched for any externally or internally, without having met with it. Such a state is of course possible, but I think it must be rare, and a little extra traction would in all probability stop it. If this be the case, what is the use of hastily delivering before the os is dilated, and before the system has time to rally the effects of flooding and of the version? Many of the deaths following placenta prævia I believe may be fairly attributed to too rapid delivery. Turn, and the danger is over, if you employ the child as a plug; wait then for the pains, rally the powers in the interval, and let nature gently assisted complete the delivery.

As for the child, waiting for a reasonable time must necessarily be safer till the funis comes to be pressed upon, as is the rule in ordinary breech cases.

I believe also the power obtained by the mode of version I have just recommended, and the restraint of hæmorrhage thereby, will form a more satisfactory plan, at least as far as regards the child, than the detachment of the placenta recommended by Dr. Simpson in certain cases—it is in these very cases—where only a finger or two can be passed into the os; and where the hæmorrhage has already been nearly fatal, that the advantages of this mode is most prominently seen.

Of course the above method of operating does not exclude other modes according to circumstances, still I believe others will find, as I have, that it can with advantage be applied to the majority. To give security from hæmorrhage in every case is very satisfactory, especially as some of those with only very partial presentation bleed as severely as those over the cervix wholly.

Should the placenta be more or less completely over the os, the membranes will generally be found by detaching the placenta on that side which is least thickened; otherwise the

method of detaching the placenta all round till the membranes are reached is the best.

The following plan, recommended by Dr. Barnes, namely, of detaching the placenta for a distance round the os, may be therefore advantageously adopted here, being perhaps more scientific than allowing the descent of the child gradually to do the same; besides this it has a very material advantage in releasing the cervix, and allowing its dilatation to take place, which effect I have found to be produced.

From my knowledge also of the use of the elastic bags in dilating the cervix in other cases, and also in one of placenta prævia, I have every reason to believe that in them we have a very valuable adjunct to version in these cases, as well as in others where we require moderate dilatation of cervix.

The advantage *chloroform* gives us in the above form of version is very marked. The passive condition of the abdominal walls, and the temporary suspension of uterine pains, relieve the operation of many obstacles which might occasionally prove insuperable.

But it must not from hence be inferred that in the above operation it cannot be dispensed with; on the contrary, at least half have been performed without chloroform, and many of these have been amongst my most satisfactory cases.

I shall now give twenty cases illustrative of the above remarks. Some of them have been already published in the 'Lancet' above referred to; while others are new.

The first group contains eight cases of *Placenta prævia.* I may here remark that these cases are only instances of this particular mode of treatment, and not to be quoted in statistics under the general head. Indeed they cannot be quoted fairly in any statistical table, except especial care is taken to place them by the side of, or in connection with cases of similar urgency; for it must be seen that this mode is employed in a stage earlier than others can possibly be, excepting those in which the placenta is recommended to be detached; and therefore the severity of the cases are much

greater, and requiring more immediate interference, than in those cases where the os, being fully dilated, and the placenta only at its margin, the rupture of the membranes is sufficient to ensure the safety of the patient.

Case 1.—*Eighth month of pregnancy; four days' flooding; extreme debility; os size of crown piece, unyielding; placenta three fourths across it; attempts at dilatation; external and internal version; delivery. Lived three weeks.*

Mrs. B—, of Walworth, a delicate, feeble woman, the mother of six children, about thirty-eight years old, and eight months advanced in pregnancy. For the four previous days she had been losing blood in gushes. Her attendant requesting me to see her, I found her, on my arrival, very blanched, pulse thready, very weak, and quick; voice very feeble; altogether in an exceedingly low state from flooding. The os uteri was about the size of a crown piece, thickened, irregular, and unyielding; the placenta presenting three parts across it; the membranes not broken; no pains had appeared; fœtus alive; movements feeble and convulsive; head presenting. Blood was still oozing. I therefore gave her plentifully of spirits and water; and introducing my hand into the vagina, I endeavoured gently to dilate the os. After trying some time with very little effect, I thought it would be a great advantage if I could turn without entering the uterus, and put in practice the method previously described. The head receded to the left side as the breech came down. The shoulders then presented, but in a minute more they followed the head, and then the leg was easily felt through the membranes. Having broken them, I drew the knee into the vagina, and, plugging the os with the leg and breech, and keeping up a slight traction, I waited to allow of further rallying. I also gave a dose of secale, with stimulants, to ensure contraction subsequently. As the os expanded I drew down the fœtus, which was fully born (but dead), in about three quarters of an hour. She did not lose half an ounce of blood during the whole process, nor during the removal of the placenta, which was slightly

attached, but not adherent. Had she lost another gush she must have died at the time. However, the quantity already lost had been too much; for, after lingering out three weeks of extreme exhaustion, she died.

This was the first case in which I employed the combined mode.

Case 2.—*Eighth month of pregnancy; os irritable, admitting only two fingers; placenta two thirds over it; external and internal version; recovery.*

Mrs. ——, of Castle Street, Borough; aged about thirty-five; thin, but tolerably healthy; eight months advanced in her eighth pregnancy. During the fortnight previous to my seeing her she had lost blood by gushes and clots, at no time very severe; and about six hours before there was a small gush, with clots, and at the same time the liquor amnii escaped, but no pains followed. I found there was still some bleeding, though not extensive, with clots in the vagina. Her appearance had not been affected by the loss. The os had been dilated to half the full size, but now it was so excessively irritable that upon the slightest touch of the fingers it contracted so that only one and at the most two fingers could enter. The placenta was stretched two thirds across it, posteriorly. It here seemed to me that if the leg and breech of the fœtus could be made to form the plug, the patient would be secure. The only way possible without much risk was to endeavour to put in practice the method before described, which was easily done, though not quite so readily as in Case 1, in consequence of the irritability of the cervix; still it was effected, notwithstanding the prior escape of the waters, without any force or pain, and under circumstances which would have precluded entrance of the whole hand. By means of two fingers in the os I drew down the knee into the vagina; and Mr. Woodman (the senior obstetric clerk) having passed a loop of tape through the bend of the knee, I left the case in his charge, with instructions not to hurry the birth, but to keep up gentle traction, and thus to plug the cervix. In about three hours

the os relaxed and dilated to its full size, when the fœtus was brought down. It had apparently been dead for a day or two. Not the slightest drop of blood was lost during the whole process of turning and extraction, and the woman recovered without a single bad symptom.

Case 3.—*At full term of pregnancy; copious sudden flooding; os uteri fully dilated; external and internal version easily accomplished.*

Mrs. P—, a fine, healthy person, well made, who had always had rapid labours. At the time I saw her she was at full term of her seventh pregnancy. Having been seized twice within the previous month with a gush of blood (each time about half a pint), she was kept quiet. Twenty-four hours before I saw her she had had the third gush, which had continued ever since. I saw more than a pint, and the nurse said she had lost altogether as much more. At the time of my visit the face was not much blanched, nor was the pulse much affected. The os uteri was fully dilated, the placenta half way over it; uterus perfectly inactive. The liquor amnii had escaped, but the fœtal head was high up; no violent bleeding, but considerable oozing. There can be no doubt that the old method of version would have been very practicable. Still, as every circumstance was favorable, I turned by the method previously recommended, and found it very easily and speedily managed. In about two minutes the foot was in my hand, and drawing the leg through, and the breech to the os uteri, I kept up a gentle traction. No uterine action ensuing, secale was given. In a quarter of an hour pains appeared. After the breech had passed the cervix, finding the funis pulsating, I hastened the delivery, good pains assisting. The child, although not breathing when born, was soon recovered by artificial respiration. No hæmorrhage appeared during the operation or expulsion of the fœtus. The placenta not being thrown off soon, and a little hæmorrhage appearing, it was removed, being rather firmly attached.

CASE 4.—*Ninth month of pregnancy; very severe flooding; os uteri size of shilling; placenta entirely over it; external and internal version easy; recovery.*

Mrs. C—, Borough, aged about twenty-eight, of strong constitution. At about three weeks to completion of full term of her fourth pregnancy. About three weeks before she had been seized, after a fright, with sudden and severe flooding. This passed off till twelve hours before I was called to her, when she was taken with a sudden flooding, nearly equal to a chamber vessel full, accompanied by faintings, which continued during the twelve hours before I saw her. I found her perfectly blanched; pulse very feeble; extremities cold; could still swallow, and had taken about half a pint of brandy. The os uteri was about the size of a five shilling piece; the placenta protruded, apparently centrally attached, but on carefully searching I found a portion of it thinner at the posterior aspect, and, carrying the finger backwards, I reached the membranes unbroken, the head presenting. Being anxious to have command of the labour with as little shock as possible to the patient in her very low condition, I employed the method mentioned above with so much ease and rapidity, that in about one minute the foot was in the vagina. The membranes in this case were ruptured at the beginning of the version; this, however, made no difference in the accomplishment of it. Continuing to make a plug of the breech, I waited till the system had rallied by stimulants, and in order to allow the os to expand and the pains to come on. In about an hour and a half the pulse improved, and two doses of secale were given; about half an hour later, gentle traction being employed, the child was born dead. The placenta was expelled by natural efforts. No hæmorrhage occurred after I commenced version. She recovered satisfactorily.

CASE 5.—*Eight months advanced in pregnancy; exceedingly severe flooding; extreme depression; os size of crown piece, placenta at its margin; external and internal version; no further hæmorrhage. Died an hour after delivery.*

Mrs. ——, the mother of eight children, about eight months advanced in pregnancy, was taken in the night—seven hours before I saw her—with sudden flooding, which was estimated at more than two quarts. Four hours after she sent for her attendant, who found her with extremities cold, blanched, and lying before the fire. From that time till I saw her she had been losing blood by continuous oozing, considered to be about half a pint. On my arrival, I found her blanched, pulse scarcely perceptible, voice strong, and considerable muscular power. The os was dilatable, about the size of a crown piece, but had not been so more than an hour. The placenta came at that time only to the margin. It had before been felt over the os in part. The liquor amnii had escaped; no pains. As the oozing was still going on, I was anxious to secure a plug. I therefore directed and assisted Mr. Wadkins (the senior obstetric clerk) in performing version by the method above described, which was done in a few minutes. The moment the head rose into the iliac fossa the shoulder presented, and then as instantly the foot was in the hand of the operator. During this time we gave largely of stimulants, and apparently the patient had still considerable power. By the weight of the arm, traction was kept up against the cervix, and in about half an hour the child was born (but dead), without any hæmorrhage at all. The uterus contracted well, and the placenta came away naturally. Warmth and stimulants were employed, but the pulse began to flag still more, and the powers gradually failed, till, about an hour after, she died, rather suddenly, It seems to me that if the version had been performed as soon as the os was capable of admitting a finger, the draining of blood might possibly have been prevented. The quantity lost at first was not approximately known till after death, and there did not seem any justification for retarding delivery, as has been recommended in extreme exhaustion.

Case 6.—*Seventh month of pregnancy; moderate*

flooding; os size of crown piece, placenta at edge; external and internal version; recovery.

Mrs. ——, Lower Bland Street, Dover Road; about thirty-five years old; has had seven children. Being in her seventh month of this pregnancy, she was taken with labour pains about midnight of September 16th, 1861. Two hours after, she had a violent gush of blood, and subsequently two other gushes. The midwife was sent for, and afterwards myself.

I found her, at 7.30 a.m., not particularly reduced, though she had fainted two or three times. The vagina had been plugged, but ineffectually. However, no hæmorrhage had taken place in any quantity. The os, I was informed, a few hours before, was about the size of a shilling, hard, and thick. I found it the size of a crown piece, and yielding; placenta inserted a little over the edge; the membranes perfect. Head presenting. There was still a slight oozing of blood, and as no pains had been felt for some time, I thought it safest not to treat it by rupturing the membranes, but decided upon turning, and using the breech of the child as a compressor. Placing my hand on the outside of the uterus, I pushed, by the introduction of *four* fingers only into the vagina, the head up towards to the right side, as it was inclined to it, and depressed the breech to the left side. Version was accomplished in about two minutes, then, bringing the breech into the os and keeping gentle traction upon it to act as a plug, I gave a dose of secale, and waited for pains. One came on in about a quarter of an hour, expelling the child alive, while a second in about five minutes expelled the placenta. Everything went on naturally; no hæmorrhage occurred throughout the whole delivery, which did not last more than about twenty minutes.

This case presents a good instance of the ease with which version can be effected in this way. There is no question but that the hand could have been introduced through the os within half an hour, and turning so performed; but I presume it will be admitted that the avoidance of it is an advantage in many respects.

CASE 7.—*Ninth month of pregnancy; moderate flooding, os admitting only two fingers, placenta three fourths over it; external and internal version; recovery.*

Mrs. ——, two children; a poor feeble woman, in last month of pregnancy. Had irregular bleedings for two or three weeks before; but on the day of my seeing her she had lost a considerable quantity in gushes, whereby she was much reduced. Slight pains had occurred. I found her with feeble and rather quick pulse. Os size of a crown piece, soft, but not yielding; could only just pass in two fingers. Head presenting, but placenta stretched three fourths across the os posteriorly. There was still some considerable oozing of blood. Version was accomplished by the above method in a few minutes; the foot was at the os. The rigidity of the parietes gave a little difficulty, but steady pressure on the muscles overcame the resistance. I drew down one leg first, but owing to the position of the other leg, close down to the os, it did not effectually plug it, and some bleeding continuing, I brought the other through, and no more bleeding ensued. The same management was adopted as in the former case. The pains came on in less than an hour, and the child was expelled by natural efforts alive in a short time after. The placenta was retained by irregular contractions and adhesions, but after its removal everything did well. Placenta extended from os to fundus. It would have been impossible in this case to have turned in the old way for some time. The child made an excellent plug; not any bleeding occurred after the second leg was brought down.

CASE 8.—*At full term of pregnancy; os size of half a crown; placenta three fourths across it; severe flooding; external and internal version; recovery.*

Mrs. D—, six children; at full term. Had a severe hæmorrhage two weeks before my visit, without evident cause. Shortly before my seeing her she lost a large quantity of blood in frequent gushes. She was quite blanched with feeble pulse, 120 per minute. She had been very

sick, but this then had passed off. Stimulants were given. I found placenta three fourths over the os; head presenting; os uteri size of half crown; still losing blood. No labour pains whatever; membranes perfect.

Being anxious to secure her against the risk of further loss, I performed version. I first detached the placenta as far as the finger could sweep; this liberated the os uteri considerably. I depressed the breech to the left, and head to right, instead of in the opposite direction, because I found the head more on right than left. The version was easily accomplished; a slight difficulty for a moment arising from the patient attempting to strain. As soon as the child was nearly round I ruptured the membranes. As the waters escaped the child came to hand. I brought down a knee, and the foot was shortly outside of vulva. This was gently drawn down to keep up pressure, so as to plug the os. This it did effectually; not a drop of blood lost afterwards. Having accomplished thus much, and keeping up gentle traction, I waited for the full expansion of os and for uterine action. This not appearing for an hour, I gave secale. In an hour and a half the pains began. Labour then progressed quickly, and in about three hours the child was expelled to the chest; the shoulders being large, some little detention ensued, but the child was born alive. There was hour-glass contraction and hæmorrhage, which required abstraction of placenta; but this ultimately ended well, and she recovered as well as could be expected, considering her former loss.

In this case I should have had to wait a considerable time before I could have introduced my hand into the uterus. During this much blood might have been lost, which she would have with difficulty borne.

Podalic Version in Accidental Hæmorrhage, with Head Presentation.

Case 9.—*Accidental hæmorrhage; excessive loss; transfusion; slight improvement; version; death.*

This was a case in which so much blood was lost before labour began, that ultimately transfusion was adopted, with such a rallying of the pulse that, as hæmorrhage was reappearing, I thought it advisable to deliver whilst I had opportunity. I at first tried the long forceps, the os being fully expanded, but the introduction of the first blade being attended with some risk, owing to the difficulty of insinuating it between the head and flabby os uteri, that I turned most readily by the above method, only half a minute being required in the act of version. After a short time delivery was accomplished, but the powers were so reduced that she died half an hour after.

Podalic Version in Convulsions in Head Presentation.

Case 10.—*Convulsions; seventh month of pregnancy; podalic version; recovery.*

Mrs. H—, æt. 33, in the seventh month of the fourth pregnancy. Her history is briefly this. In the first confinement she had one convulsion—child born alive. In her second she had none—child born alive. In the third pregnancy, at the seventh month, she was seized with incessant convulsions, for which chloroform was given with benefit. The convulsions continued for four hours till after the birth of the child, which was dead. She quickly recovered.

On this fourth occasion I was called in consultation to see her, about two hours after the first convulsion. She had had five in the interval, snoring between. She had, however, just become conscious. Her pupils were natural, and pulse full; albumen was found in urine. There were no pains. The os uteri showed only a slight indication of dilatation.

A few leeches had been applied to the head, with ice afterwards. Purgatives administered, and mustard plasters applied to the legs. As she seemed improving I did not think it necessary to interfere with the uterus, advising that

the same line of treatment should be adopted, unless the case became worse.

I was called to her again after ten hours. About seven convulsions had occurred during the interval of my visits. She was then quite insensible between each; pupils variable, pulse about 80 per miuute rather full. The os uteri had dilated so as to allow one finger to enter, and reach the head. The child was living; the membranes perfect. As I considered that it would be advisable to empty the uterus as soon as practicable, I saw that it would be a great advantage if I could gain hold of the foot, by which I could take advantage of the earliest dilatation of the os, and also increase that dilatation by gentle traction on it. To effect this, I pushed, with the finger in the os, the head upwards to the left side, and the breech downwards towards the right side, from the outside by the right hand on abdomen. In a minute or two the foot was at the os, but I could not as yet bring it through with one finger alone. I retained it there by gently pressing it against the os, and after some time, when I could pass two fingers through the os, I brought the foot and leg into vagina, which operation was facilitated by pressure of the hand outside, just above the pubis, which acted very easily upon the leg. Having arrived at this point, I waited for the more perfect dilatation of the os, assisting the process by gentle traction, such as the weight of the arm in part would produce. In about two hours the breech passed, when good pains coming on the child was wholly born in about half an hour more. The rest of the delivery was natural. The child was dead.

During the time I waited there were two convulsions of short duration. All the time she lay in a state similar to that produced by chloroform. Her consciousness returned next day, and she recovered very favorably.

In this case I have no doubt but that I was able to deliver at a period much earlier than I should have been had labour gone on unassisted—a point of importance where deep stupor is present, and where the patient has already been the subject of convulsions. The whole operation was

easy, but required patience to wait the dilatation of the os. I much regretted at not having any artificial dilating bags. However, in their absence I found the leg and breech of much service in dilating.

Podalic Version for Coarctation of Brim with Head Presentation.

Case 11.—*Coarctation of the brim; labour two days' duration; liquor amnii escaped twelve hours; version by external and internal mode; recovery.*

Mrs. ——, who had had two premature labours before, had in her third pregnancy been in labour for two days when I saw her. The head, about one third entering the brim during each pain, had remained for about ten hours in nearly the same position, with slight overlapping of bones and a scalp tumour. The os uteri was at that time fully dilated, but the anterior lip, being very low, was pressed between the head and the brim; the membranes had ruptured about twelve hours before. She was becoming very exhausted, with brown furred tongue, and it was evidently imperative to do something. To apply the forceps would have been attended with great risk, and wishing to give the child a chance, if but remote, I determined on turning, which I thought would be attended with but small hazard to the mother, provided I could do it without passing the hand into the uterus. It was attempted, very carefully, without chloroform at first, but finding the uterus clasped the child tightly, I gave it. Very little of it was needed, for as soon as torpor came on, the uterus became passive, and version was effected in a short time upon the plan described. In this case I found that pushing the head aside alone had no effect in bringing the breech down; it required the pressure of it upwards from the exterior as soon as it was raised from within, combined by the pressure on the breech, to secure the alteration of position. However, that was by no means a

difficult task, and the foot was in the vagina in a few minutes. The head gave much difficulty while passing the brim, but eventually it was delivered without perforation. The child consequently died before birth, the head being rather above the normal size. The mother recovered without a bad symptom.

CASE 12.—*Coarctation of the brim; labour two days' duration; liquor amnii escaped about four hours; version by external and internal mode; recovery.*

Mrs. ——, a small, rickety woman, æt. 27, had had two labours before; the first very tedious, child dead; the second also tedious, child alive. When I was called to her, she had been in slow labour a day and a half, and in active pains for eight or ten hours. The os was fully dilated, and the liquor amnii had escaped for four hours. The pains at the time were very strong and urgent, but failed to have any effect on the head, which had never fairly entered the brim; consequently the bones could not have been compressed. She was becoming much exhausted; tongue brown and dry, pulse above 100. The child was still alive. The question arose therefore, Was it possible to avert the perforation? To have applied forceps would have been very hazardous to the mother. The choice rested, consequently, between perforation and turning. The latter seemed the more indicated; for, first, she had a living child at full term; therefore the obstacle at that time was not extreme. Secondly, it was possible that the head had never been fairly applied to the brim. Thirdly, if there be a greater facility for the passage of the head by breech delivery, it might possibly in this instance be successful in saving the child. When she was placed under the influence of chloroform, the principal part of the pains subsided; and then by pressure on the breech at the fundus externally the knee was brought down within reach and secured, although in this case the hand was *partially* introduced through the os. The head, however, on reaching the brim, would not pass through till after much time had elapsed, and then only by perforation through

the occiput and mouth. The bones were highly ossified, without the slightest attempt at overlapping; had they been naturally yielding, the result would in all probability have been different.

These last two cases, albeit unsuccesful as to the life of the child, as I stated in my former paper, proved the possibility of effecting version by the new method. Although, under chloroform perhaps, the old plan would have been equally possible, and perhaps equally rapid, yet it will, I think, be admitted, that if we can turn without the presence of the hand in the uterus, or by the introduction of only a part, the advantages I have enumerated at the end of this paper will have been gained. These cases form a severe test, and are nearly the most critical that can be applied to it. I purposely avoid entering into the interesting question as to the advantages, or the contrary, of version over perforation in these cases.

Podalic Version for Prolapse of Funis in Head Presentation.

Case 13.—*Funis presentation; version by external and internal method; child delivered with heart beating, but did not breathe. Mother did well.*

Mrs. ——, in her fourth pregnancy. All the former children have died in the birth. She was of healthy appearance. When I saw her she had been in slow labour thirteen hours. The os was fully dilated; the membranes perfect; through which the funis could be felt subject to pressure between the head above and the brim. During every pain the pulsation in it ceased, and as the head had not fairly entered the brim, the chances of the child's escaping death seemed remote, and I therefore decided on version. This was performed in a few minutes by the senior obstetric clerk, Mr. Trewman, by the new method, without the slightest difficulty. At the end of the version the membranes gave way, and the foot entered the vagina. The case then went on as is usual in such instances. The funis

ascended out of the way, and the child was born about an hour and a half after the turning, its heart still beating, but respiration could not be induced. The patient was astonished on being told, after the version was over, that the child had been turned within her, so little pain did it produce.

Podalic Version in Prolapse of Funis with Arm Presentation.

CASE 14.—*Hand and funis presentation; version.*

Mrs. V—, æt. 27, a delicate woman, always having had some irregularity in her presentations, was visited in her seventh confinement, five hours after labour had commenced, by the obstetric clerk, Mr. Davy, who found the hand and funis presenting. The case requiring version, Mr. Davy decided upon the podalic form. Chloroform having been given, Mr. Davy depressed the breech from the exterior, bringing the inferior extremity down to the os readily. The child was treated as usual in footling cases, but its life was not saved.

Cephalic Version in two cases of Arm Presentation; reduction of the Prolapse. Children born alive.

CASE 15.—*Transverse presentation; funis presenting; cephalic version; child living.*

Mrs. ——, a healthy woman, had had five labours before, one having been breech and one a shoulder presentation. The os was fully dilated; membranes perfect; pains moderate. No part of the fœtus could be found presenting till the whole hand had entered the vagina, and then the finger only impinged on a hand, the funis resting on the membranes. Under these favorable circumstances, I determined to try cephalic version, which was readily effected by pressing down the head on the left side from without, in the direction of the os, at the same time rupturing the membranes. The head then entered the os, and by keeping pressure by the hand externally till the uterus contracted itself around

the child in its new but natural position, and from the outside pressing the breech to the fundus, and applying a bandage externally to retain it steadily there, the case proceeded naturally, and a living child was born in about an hour and a half. There was at first some little difficulty in retaining the funis about the head, but by the careful management of Mr. Ninnis, the senior obstetric clerk, it was kept up by the outward pressure till the head had fairly entered the os, after which there was no further trouble.

Case 16.—*Cephalic version from back presentation; funis presentation reduced. Child born alive.*

In consequence of considerable diminution of the conjugate diameter of brim, which had caused very difficult labours and operative interference, labour was induced by sponge tent at the seventh month of pregnancy.

Twenty-nine hours after its introduction, pains came on with slight dilatation of the os. About thirty-six hours after, it was about the size of a crown piece. At this time the membranes ruptured. The back of the thorax was then found to present, and I was summoned to her.

Passing the left hand into the vagina, and placing the other externally on lower part of abdomen, I was able to make out the head, lying towards the right side. By pressing it downwards from without, it impinged upon the two fingers within the os, and thus the head could be moved about at will, and was placed at the os uteri. It was then observed that the funis had passed down by the side of the head; I instantly replaced it by the internal hand, and pressed the head into the os with the outer hand, which was done with great ease. By continuing the pressure for half an hour, the funis was kept permanently up, and the head remained firmly in the natural presentation.

The pains had become feeble, and secale was given without any result; and as she showed decided symptoms of exhaustion, I advised the use of the long forceps, which was carefully done by Mr. Cann, the senior obstetric clerk. A slight traction sufficed, and the child was born alive. The

uterus contracted well afterwards, and the placenta came away without trouble. The mother recovered well. The child lived two weeks.

If these cases are compared they will be found very similar. In both the children were born alive, in both the funis came down by the head. In both the funis was returned, and the head pressed from the outside so as to fill up the os, thereby preventing further descent of the funis. These cases seem, in this latter respect, to give us a practical hint, which is worth attention—I mean in reference to funis presentations. A considerable number of these cases, at least in their early stages, are troublesome in consequence of the intermittent nature of the labour pains; the funis falling directly the pain ceases to press down the head into the os. In some, however, it is different, the funis being driven down during a violent pain. It is not to these, but to the former class, that the pressure of the hand on the head from the outside is so peculiarly applicable, being in fact a substitute for the natural pains during their recession.

I believe the treatment just related will be found a sure and simple method in the early stage of prolapse of the funis.

Cephalic Version, changed to Podalic in Arm Presentation.

Case 17.—*Arm presentation, with great exhaustion; cephalic version first induced, risk in waiting; changed to podalic presentation.*

Mrs. W—, Broadwall, Lambeth, in her seventh confinement at full term. She had suffered much from privation. Had been about seven hours in labour, with much want of power, and quick pulse, and she seemed very ill. I found that the arm and thorax had been pressed down into pelvis. The pains were not at all powerful, and I was able by gentle efforts to replace the thorax into the uterus, and then by external assistance I placed the head in the os.

However, I found that when I lifted the thorax off the os uteri, that dark blood flowed by the side, which had evidently been effused for some time, and there appeared to be more in the uterus. When I had placed the head in its natural position, which was very easily done, she seemed not strong enough to complete labour without risk, and as there were signs of the death of fœtus, I thought it best not to wait; therefore bringing the feet down, I delivered her, pains assisting at the end. The placenta had been evidently detached for some time, it was quite loose, and there had been a little oozing internally, but not enough to produce any loss of colour in the face.

Pleurisy came on the same evening, with symptoms similar to influenza, and she died on the third day.

These three cases show that it is not difficult to change arm into head presentation, and I have no doubt but that had the condition of the last patient given me time to wait, labour would have been completed in the natural manner, though when the child is known to be dead from unmistakable signs, it is not worth while to detain delivery, but to deliver it by the foot.

Case 18.—*Arm Presentation; Cephalic Version tried without success; Podalic adopted with ease.*

Mrs. V—, New Kent Road, had had six children; her pelvis was ample. I found the os uteri nearly fully dilated, the pains about five minutes apart, not strong; but the os contracted rather tightly. The left arm of child was in the vagina up to the shoulder, and the head to the right side. The liquor amnii had escaped for a whole day.

I pushed up the arm into the uterus with the left hand, and with the other on the outside pressed the head down into os. However, from the active state of uterus, the face had a strong tendency to present, which continuing would have retarded delivery. I thought it best to deliver by foot (as it was not likely to be more disadvantageous to the child), which I effected by transferring the outer pressure to the breech of the child; after a short time the knee came

down to the os; and as soon as I had pressed up the shoulder, which had a great tendency to be forced down, I delivered her of a living child. The patient recovered excellently.

In this case, no doubt I should have been more rapid had I chosen podalic presentation at first. It is not here the place to enter into the relative advantages of one presentation over the other, nevertheless it seems to be best, things being equal, to place the child into its most natural position for delivery. This case also shows that when the child is transversely placed, cephalic or podalic version may be produced at will.

Case 19.—*Shoulder Presentation; Podalic Version.*

Mrs. ——, admitted into Mary ward in April, 1861. The antero-posterior diameter of pelvic brim measured only two inches and one eighth, which had caused her labour to be accomplished with the greatest difficulty; embryotomy being employed on the last occasion, although brought on at the seventh month.

Labour was induced on 13th April last, in the seventh month of this her fourth pregnancy, by puncturing the membranes. Pains came on in about sixty hours, after which they continued to increase for twenty-four hours, at intervals of five minutes. The os uteri was then about the size of half a crown, still unyielding, scarcely admitting two fingers. The liquor amnii still existed in small quantities, draining slowly away. The shoulder presented, the head being to the right side, the breech to the left, but both approaching the fundus, the child being somewhat doubled in itself.

As it was of much importance to rectify the presentation before the os dilated, so that the presenting part might not be driven lower down; and as the footling presentation seemed, with so narrow a brim and a small soft head, to give the best chance for the life of the fœtus, I decided on attempting podalic version. The patient was put under the influence of chloroform. The left hand was introduced into the

vagina, with two fingers through the os, and the presenting part pushed in the direction of the head, while the right hand pressed down the breech from without. The fœtus did not glide round in the uterus very easily, for it was tightly clamped by it, and every movement within or without produced uterine action, consequently it required a little patience; but by varying the position and direction of the outside pressure, the foot was at last drawn into the os by two fingers. The chloroform was discontinued, and after about half an hour, slight expulsive pains appearing, gentle traction was made upon the child.

It was not long before the os dilated, and the child was brought down during the pains. Some detention of the head took place at the brim, in consequence of the very narrow antero-posterior diameter, and the child's life was lost.

The mother did very well.

Case 20.—*Twins; first delivered by forceps; second, back presentation; uterus tightly contracted round it.*

Mrs. —, æt. 27, of healthy appearance, though affected with severe dyspnœa; second pregnancy. In the first labour, child removed piecemeal by another practitioner. Had been eleven hours in her second labour, under the care of an experienced midwife, no progress having been made for some hours, although the pains were powerful. I found the head in the cavity of the pelvis, not impacted. After waiting an hour, and her breathing being exceedingly embarrassed, I delivered the first child by short forceps without any trouble. It showed evident marks of compression against its fellow; it had been dead some time. I examined the patient directly, and found another bag of liquor amnii, which, after considerable effort, I ruptured. The uterus immediately contracted tightly around the second child, the os being of the size of a five shilling piece, but very rigid. The child presenting by the back, I waited an hour, and finding no disposition to relax nor to hæmorrhage, I gave a dose of opium to lessen the rigidity, leaving her in charge of

the midwife. After seven hours I called again, and finding no relaxation, I examined carefully to find the direction of the extremities, which I was able to do by the angle of the scapula. By pressing the breech from the outside, assisted by the pushing through the os upon the parts of the child, I succeeded in obtaining hold of the lower extremities, after which the labour went on as is usual in such presentations, and she recovered exceedingly well.

The rigid contraction of the whole uterus gave rise to much difficulty in delivery, and was, I suspect, produced by secale. The shortness of breath prevented me from giving chloroform, which generally acts like a charm on the irritated uterus. To have passed the hand fully into that organ would have been hazardous in the extreme. It was a great satisfaction to me to find that the external pressure, combined with the internal assistance, had succeeded in preventing the necessity of further measures, which, in this case, would have been very troublesome and full of risk.

This case, it seems to me, shows the advantage of early turning in abnormal presentations, for the chlid, in the labour before, had to be eviscerated under a similar presentation.

It was also a severe test for the operation, the child being doubled up, and the liquor amnii away.

It showed the value of combining both hands, the action of the one coming into operation when the other begins to lose its power; for the inner in this case was almost powerless, while the outer was the principal motor.

These cases I have brought forward are examples of the many applications to which the method I have advocated can be put, and shall now bring as concisely as possible, the *advantages* of the operation; concluding with pointing out its *difficulties*, and the mode of meeting them.

The *advantages* which seem to me to be given most prominently from this method of turning may be grouped into two classes—first, those of avoidance, and secondly, those of acquisition.

1. We shall avoid the addition of the hand, and perhaps

of arm to the uterine contents, with the present and chances of future irritation caused by it.

2. Entry of air into uterus.

3. Liability to ruptured uterus, the pressure being opposite to that of the ordinary method.

4. Much of the pain and distress felt in the ordinary plan.

5. The necessity of baring the arm, and perhaps the removal of the coat of the operator.

6. Much of the fatigue and distress felt by the operator by the pressure of the uterus during contractions.

7. The increase of collapse by the presence of the hand in cases of severe exhaustion.

I do not wish to lay any more weight upon these points than they deserve. The dangers of cautious turning by the old method are not so great as have been supposed, the unphilosophical deductions from the statistics of this operation having given erroneous results.

On the other hand, we shall gain—

1. Opportunity of correcting malpresentations as soon as recognised.

2. The capability of early delivery.

3. The opportunity of using the child as a compress in placenta prævia.

4. The capability of version at a time when the old method is impracticable.

5. The opportunity of producing cephalic version much more readily than formerly.

The *difficulties* we meet with in performing this plan of turning are now to be noticed, and I shall show the manner of combating them at the same time. They will be taken in the degree in which they impede.

The first is, the doubling up of the fœtus upon itself, as is the case in protracted transverse presentations and its varieties; especially where the arm has been in the vagina for a considerable time. If with this state we have a very active uterus, I think we have the most difficult conditions for this form of turning, as indeed for any mode, much

assistance is derived from chloroform; and I would say that those who have not had the opportunity of frequent practice would do best not to try the above plan, but, as I have before noticed, to depress the breech as much as possible from the exterior, and then to introduce the hand as far as is required to reach the knee, which has generally been brought down by this effort at least half the distance towards the cervix.

The second is, the firm and active contraction of the uterus upon the fœtus.

The merely close apposition of its walls to the fœtus does not of necessity prevent the gliding round of the child, though it adds more or less to the difficulty and requires more care and patience. But when the uterus is contracting continuously round the child, as when it has been rendered irritable by long action by fruitless attempts to turn by the hand within, or by secale, then we shall find the difficulty very great, as will be the case under any plan. Our object will be then to remove or lessen that irritability by appropriate remedies, to effect which I have found no agent more satisfactory than chloroform, inhaled to its full extent. Should it suspend uterine action for only a few minutes, in the majority of cases version may be effected without the hand in the uterus, except in the cases of arm presentation just alluded to.

But I feel certain that the adoption of the mode of version that I am advocating will do very much to diminish the occurrence of these two difficulties. The power of early turning will, by the vigilant practitioner, be made use of, and his cases will not be suffered to pass into the conditions here mentioned. I would say, under favorable opportunities, arm presentations ought to be rare.

The third difficulty to be contended with is the action of abdominal muscles, and the contortions of restless patients.

These can generally be overcome by appealing to the patient's reason; but if necessary she must be placed under chloroform.

The fourth trouble is the exceeding flexibility of the child. This is seldom the case when the labour is at full term; but will be found at the earlier periods from the fifth to the seventh month, especially if the child be already dead, and more so still if it be decomposing. However, this condition is not a real obstacle; a little patience, and variation in the direction of the external pressure, will seldom fail to bring the knee within reach. But this condition is sometimes mixed with the fifth source of embarrassment, namely,

The fifth is excess of liquor amnii. This, again, scarcely ever will be troublesome at full period, but will be more noticeable about the fifth or sixth month. The child then floats about so easily that it cannot well be seized, and if it is very flexible, there may be some difficulty in hooking hold of the knee, or placing the head at the os. However, this trouble is easily disposed of by rupturing the membranes, and as they flow you can accomplish your desire.

Obesity may hinder, but seldom can be a complete obstacle.

I have thus, and I hope fairly, pointed out the difficulties I have found to impede the plan I have proposed, with the means of overcoming them. I have already remarked that, should we fail to be successful with this mode, we can easily have recourse to the old one, for instead of rendering it more difficult, it tends to make it more easy.

However, taking all kinds of cases requiring version together, I think I can promise you that you will succeed in fifteen or sixteen cases out of twenty. This, perhaps, is above the ratio in consulting practice, inasmuch as the arm is generally down many hours before seen. I think that those who have opportunities of seeing malpositions at a much earlier period, and consequently when more manageable than I have, will probably find a great if not greater success. *One rule observe in operating—do it methodically, not confusedly nor hurriedly, lest you lose your points.*

In regard to the risk of metritis after this plan of version, as has been imagined would be the case by some who have heard of it for the first time, I may say, as far as my cases

are a guide, I have never seen any the least indication of it, nor have I heard of it in the practice of others.

If you are obliged to use such force as will engender the chances of such a sequel, you may be sure that you have not understood the kind of pressure required, nor the kind of motion to be produced.

I will detain you but a few moments more to repeat a few words from the former paper on the subject. "In considering the general advantages of this mode of operating over the ordinary method, I disclaim all intention of unnecessarily depreciating that exceedingly valuable and ancient operation —one which has saved numberless lives, and one with which we cannot at present, and probably shall never be able to dispense. Still, if it can be shown that in a considerable number of cases requiring version the operation can be accomplished much earlier, and as quickly or even more so without the necessity of introducing the whole hand into the uterus, I am sure that such an alteration will recommend itself without any panegyric on my part."

Dr. Cleveland inquired whether, in practising the operation now recommended, the right hand could be employed within the vagina as well as the left. This was important, as many practitioners were accustomed to use the right hand for manipulations, and to such the use of the other hand might prove awkward.

Mr. Baker Brown remarked that he had no doubt that the plan recommended by Dr. Hicks would be found in many cases most useful, although at first more difficult than the old plan. He (Mr. Baker Brown) looked upon the operation of turning as one of the simplest and easiest in obstetric surgery. In reply to the last speaker, Dr. Cleveland, he believed that the left hand should always be employed, because, the patient lying in the usual position on her left side, the convexity of the hand would pass readily into the hollow of the sacrum; whereas, if the right were used, it would be found very difficult to twist the arm round to introduce the hand with facility into the womb.

Dr. Broadbent related a case which occurred to him four years and a half ago, when resident obstetric officer to St. Mary's Hospital, in which he was compelled to resort to the method of turning described by Dr. Hicks, from the impossibility of effecting version in the ordinary manner. He was sent for to a woman in puerperal convulsions, so severe that, soon after reaching her, she was for a time supposed to be dead. As respiration became

re-established, chloroform was administered. On examination, he found the posterior part of the os and cervix uteri affected with cancer, which involved so large a proportion of the circumference as to leave no hope of dilatation by the natural efforts. Deeming it necessary to effect delivery, he determined to turn. It was, however, impossible to introduce more than two fingers into the uterus, and these only by using a certain amount of force. His right hand was supporting the uterus externally, and the idea occurred to him to attempt the version by the co-operation of the two hands. The child was turned very readily; but great difficulty was experienced in getting the feet one after the other through the rigid os, and the head was extracted only after prolonged efforts. The child died from pressure on the cord; and the mother, becoming violently maniacal, and refusing all food, also died. He had been astonished at the ease with which the child was turned by the method in question, which, however he had not subsequently again tried.

Dr. Hall Davis could from experience bear testimony to the practicability and value of the operation of turning the child by external manipulation, as proposed by Dr. Hicks. He must, however, confess that he had found Dr. Hicks's method most successful when conjoined with the introduction of two fingers of the left hand to hook down the knee, or of the entire hand when the foot could not otherwise be reached. In some cases he had found version by one foot impossible; he had then by bringing down the other foot effected his object with facility. In those cases of placenta prævia in which the patients had lost much blood, and turning was advisable, he thought the method now proposed, with or without the employment of two fingers internally, as circumstances might indicate, particularly valuable; as in these cases, from reflex action being in them more readily set up, the introduction of the hand into the uterus was attended with greater risk. Dr. Davis had in a few cases, to obviate turning, tested the practice of detaching the placenta from the cervix; but the hæmorrhage had continued. No fatal result followed, however, as the child was immediately brought down, and acted as a plug upon the bleeding orifices.

Dr. Greenhalgh expressed the pleasure he had felt in testimony to the valuable paper of Dr. Hicks. He had had but a limited experience of abdominal podalic version, but such as he had had entirely corroborated the opinion of the author as to its practicability and value in appropriate cases. He drew especial attention to one case, in which the chairman was present, where a large immovable ovarian tumour so completely narrowed the brim of the pelvis as wholly to prevent the introduction of the hand for the purpose of turning. In that case, although the patient had only reached the seven and a half months' utero-gestation, and the membranes had been ruptured eleven hours, abdominal podalic version was speedily and easily effected. Notwithstanding, how-

ever, the feet could be felt, so small was the space for manipulation, that the delivery had ultimately to be terminated by the Cæsarean section.

Dr. Barnes called attention to the extreme value of the paper as tending to advance the cultivation of the hand as an obstetric instrument. The case described by Dr. Greenhalgh was one in which the advantages of Dr. Hicks's method of turning were most remarkably illustrated. The pelvis was so contracted that it was simply impossible to do more than squeeze the two fingers in between the tumour and the symphysis pubis; yet the turning was fairly accomplished, although for want of space it was still impossible to grasp the foot which had been brought down. He (Dr. Barnes) had performed the operation of turning about 110 times during the last five years, and he might say that in almost every instance he had derived more or less assistance from the adoption of the principle of this method. That principle consisted simply in acting upon the two poles of the long diameter of the fœtus at the same time. Just as in the case of a Chinese ball contained within another, if you pressed upon one point only, the inner ball would not revolve; but if you pressed upon opposite poles in opposite directions at the same time, the ball would revolve easily: so it was with the fœtus in utero. The general application of this principle in turning had been developed in his practice gradually as difficulties arose. He had first been led by Dr. Simpson's recommendation to use the right hand externally to support the uterus, and then he was not long in discovering that the hand outside might often be made more useful in effecting version than even the left hand inside. Thus he had for some years put in practical operation the bimanual method, and had frequently turned without introducing more than two fingers into the uterus. But he was glad to acknowledge that he had not fully grasped the principle of the operation, nor carried it into practice with entire comprehension and accuracy, until after reading Dr. Hicks's excellent description. It was right to refer to the history of this operation in reference to the researches of others. In 1807, Wigand published an admirable memoir, in which he fully described the principle and method of turning by internal and external manipulations. But this memoir had been unaccountably neglected. Although his name was quoted, what he had written appeared to have produced little or no effect upon practice. The memoir had, however, of late years been translated into French, and from that translation Cazeaux had largely quoted in his 'System of Midwifery.' Martin in 1850, and Esterle, an Italian professor, in 1859, since dead, appeared to have well understood the principle. But these and others generally preferred the cephalic version, and their writings, although quoted at times, had not influenced practice. In no text-book, except Cazeaux's and Hohl's, was there any allusion to this improved

method of turning. The speaker had acquired such confidence in its use, that, although he had been several times called in to exviscerate after other practitioners had spent many hours in vain attempts to turn, he had never yet failed to deliver by version, and he had not yet been reduced to the unpleasant necessity of exviscerating. One secret of success lay in obtaining an accurate idea of the position of the fœtus; and here he would say that there was no true transverse presentation such as was figured in many text-books. In all these cases the fœtus lay obliquely in reference to the pelvic brim; the head was never far remote from the os uteri, the breech was elevated to a higher level than the head, and the knees were generally near the lower segment of the uterus—not far to seek; so that by pushing the shoulder and head on one side, whilst the external hand pressed down the breech, the fingers passed through the cervix might easily seize one or other of them. There was one point in the operation which he did not think Dr. Hicks had described with sufficient care. As soon as the knee was seized, the mode of assisting by the external hand must be changed: at this stage the right hand should be brought down so as to receive the head in the palm, which should then be pressed upwards away from the brim and iliac fossa, whilst gentle traction should be exerted upon the limb grasped by the left hand. In this manner we had the full advantage of the principle of leverage upon the two extreme poles of the child, and the version is completed with remarkable ease. He had sometimes even been enabled by this manœuvre to elevate the head and shoulder from the brim in cases of extreme difficulty, so as to give space for the introduction of the hand, which was otherwise impossible. The obstacles to this method which he had found the most difficult to deal with arose in certain cases of dead children where decomposition had advanced so far as to destroy all elasticity and resiliency in the fœtal spine. Denman was, he believed, the first who clearly pointed out how the death of the child was, *per se*, a cause of difficult labour, and Hohl had very fully discussed this subject. To effect evolution by acting upon one or other or both poles of the long diameter of the child, it was essential that that long diameter—represented by the spine—should preserve a certain degree of rigidity or elasticity; otherwise, when traction was exerted upon a limb, the only effect was to compress the fœtus into a mass which moulded itself to the resisting structures. Another difficulty arose in cases of premature labour, partly from the small undeveloped condition of the uterus which impeded manipulation, and partly from the want of rigidity of the fœtus—also the result of immaturity—which led to its being compressed by the spasmodic contraction of the uterus into a compact ball. With regard to the use of this method of turning in placenta prævia, he fully recognised its merit. Although insisting upon the advantage of the

principles of treating placenta prævia which he himself had introduced, he was always ready to avail himself, according to the necessity of the case, of other aids. The total detachment of the placenta was not true to physiology—it was bad in practice and quite superfluous; but the partial or cervical detachment was indicated, if for no other reason, to liberate the cervix, and facilitate its dilatation, and therefore turning. As chloroform had been adverted to, he had one word to say upon that point. He fully recognised the value of this agent, and constantly derived signal advantage from its use; but the most positive experience had proved to him that unless full surgical anæsthesia were induced, it sometimes rather obstructed than facilitated turning. With regard to the objection that had been urged to the bimanual method, that it was liable to cause metritis, he could only imagine that this arose from an utter misconception of the nature of the operation. Inasmuch as it was only necessary to pass two fingers into the uterus, and the operation was accomplished with less force than by the old method—if violence had anything to do with causing metritis, the least violent proceeding must be the more free from that danger. So easy was it at times that he had on one occasion, in a case of placenta prævia, turned and delivered a child without passing more than two fingers into the vagina; he had not even turned back or soiled the cuff of his coat. In conclusion, he expressed his deep sense of the merit and usefulness of this memoir. He firmly believed it would exercise an important influence in improving obstetric practice in this country.

Dr. Graily Hewitt believed that all who had heard the paper now read before the Society would, however strongly prejudiced in favour of the older method of turning, have recourse to the bimanual method when suitable cases presented themselves. The author of the paper had brought the subject before the Society in a most able manner, and his statements were fortified by ample experience and observation. Dr. Graily Hewitt stated that he was unable to speak as to the value of the operation from personal observation. In all cases of turning, he had himself made very free use of the second hand externally, to steady the uterus and so facilitate the operation, but he had not practised the "bimanual operation" in its entirety. It was undoubtedly a great object to do without the introduction of the entire hand into the uterus, but he would at the same time remark, as, indeed, the author had stated in his paper, that the risk attendant on introduction of the hand into the uterus had been very much over-estimated. He had frequently so introduced the hand, and had never seen the slightest injurious results. There was a point in reference to the operation of turning to which he would take occasion to allude—viz., the necessity of bringing down both feet; otherwise, as he had found by experience, great difficulty was liable to be en-

countered at a further stage of the delivery. In one case—that of a patient of St. Mary's Hospital Maternity, which he had attended, the difficulty in question was particularly observed, and he now made it a rule to secure both feet at first. The method of turning recommended by Dr. Hicks would be found most difficult of execution, as Dr. Hicks had stated, in cases of cross-birth where the arm presented and the uterus was forcibly contracted. In such cases, the introduction of the hand into the uterus would be absolutely necessary. He would beg respectfully to express his dissent from the opinion just announced by the chairman as to the use of chloroform in such cases. In a case in which he had been called to assist a gentleman present, he believed, at this meeting, one arm and one leg lay in the vagina, and fruitless attempts had been made to complete the turning, the uterus being strongly contracted. In this case the effect of chloroform was most beneficial, allowing the introduction of the hand and the easy completion of the operation. In conclusion, he begged to express his obligations to the author of the paper for his interesting communication.

Dr. Hicks, in reply, wished it to be impressed upon those who thought the method so very difficult that it was not so. In the first case in which he had resorted to it version was exceedingly easy. He was pleased at the testimony afforded by the case related by Dr. Broadbent. He did not recommend this measure in every case, but advised that mode to be employed which was most readily applicable to each case. He still, notwithstanding Dr. Barnes's opinion, adhered to what he had stated in the paper concerning the advantages of chloroform. With respect to Wigand, he must apologise to him for having only mentioned his name with others.[1] He had merely read the English works upon his suggestions, in which no allusion whatever was made to the inner hand. In no English book was any mention of the plan made. As he had no knowledge of Wigand's paper, he could not say anything further. The allusion of Cazeaux to him had been made since the publication of his (Dr. Hicks's) first paper. He had not found the premature age of the fœtus any considerable obstacle to delivery. Many of the cases brought forward in the paper were premature, and no particular hindrance was observed. In answer to Dr. Cleveland, he would state that the right hand could be easily used instead of the left, if the patient were placed on the right side.

[1] See Appendix, p. 265.

Appendix to the Foregoing Paper on Combined External and Internal Version.

In the discussion which took place after my paper, it was stated by Dr. Barnes that "Wigand had published an admirable memoir, in which he had fully described the principle of turning by external and internal manipulations." At that time I mentioned I was unable to reply, not having read the work referred to. Since then, however, I have read through carefully the French translation, in the Library of the Royal College of Surgeons, and cordially agree with Dr. Barnes as to the value of the contents, in addition to the interest of its being the first work on the subject. At the same time I must decidedly take exception to the statement that he has *fully* described external and *internal* version in the manner I have pointed out in my paper. The only allusions he makes to the use of the inside hand (of course excepting in the old method) is in one where he says it is to be used for exploration; and the other, in the first of the cases he gives, where he instructs it to search for the head, and place it in as favorable position as possible to the os uteri. So far, but no farther, does his instructions for the use of the internal hand in turning go. The difference between this and that shown in my paper will be readily seen.

The reason for this is easily explained. The title of his work is this, "With *outer* manipulation *alone;* how one can rectify abnormal positions of the fœtus." The application of his plan only to *abnormal* positions of fœtus is repeated at almost every page. Then, in his third rule, he says, "When we have made out exactly the *abnormal* condition of the fœtus, we should then make descend that part which is nearest the mouth of the womb." He points out particularly that the position of the fœtus in abnormal pre-

sentations is almost always more or less in the oblique, rather than directly transverse; consequently, when the head is near the edge of the brim, he directs to bring that down by outward pressure, guiding it as before stated by the hand within. If the pelvic end of the child be near, then that in like manner is brought down. Hence his chief practice consists in straightening the position of the child in utero. If the back present, then he effects change by both hands *outside*. This is the *whole* of his act of version by his then new method—a most valuable addition to the art, truly, but beyond it he does not proceed, for if the case be urgent he turns in the ancient plan. He has given no hint on the power of the inner hand to push the child on in the direction of its head; consequently, he was unable to effect the most important kind of version, namely, *complete podalic version*, and its partial varieties in the oblique positions; he was unable in the transverse to deliver by the hand either entirely or mainly by one or two fingers of the inner hand. Hence he was unable to employ his plan, placenta previa, in coarctation of the brim, and in the many circumstances in which complete version is indicated. Indeed, he expressly states his method to be contra-indicated in hæmorrhages from womb or genital organs in convulsions in prolapses of the funis, where he recommends the old plan of version, or quick delivery by forceps, in convulsions of fœtus, &c. He requires also the presence of uterine contractions to assist him, and employs the position of the mother, placing her either on the right or left side according to the position of fœtus. These two latter points I have not mentioned in my paper as necessary; the pains, I consider, rather retard than assist the process; my efforts consequently are employed in the intervals.

The whole work is well worthy of perusal, and the remarks upon the advisability of generally leaving the case to nature, coincide very much with mine, where simple rectification of position only is required.

But still, for the reasons above pointed out, while I have given in my paper credit to the Germans for the discovery of

external version, and so much of internal as is above indicated, I must give our own countrymen the honour of the first description of the separate use of the inner hand; and for myself am unwilling to forego the claim for whatever of advantage is possessed by combining these two motive powers, each of which, by making the other more complete, gives us the power of version in circumstances hitherto impracticable, beside other collateral benefits stated in the foregoing paper.

THREE CASES OF RETROVERSION OF THE UTERUS.

By Robert Hardey, M.R.C.S. London, &c.

LATE LECTURER ON OBSTETRICS AT THE HULL AND EAST RIDING SCHOOL OF MEDICINE.

In vols. 1, 2, and 3, of the Transactions of this Society, are detailed several cases of retroversio uteri, with observations thereon, by Dr. Henry Oldham, Dr. Tyler Smith, and Dr. Henry Aveling. In the perusal of these is found much that is thoroughly instructive and interesting, and, in the varied treatment adopted for their relief, the exhibition of talent and tact of a high order. This remark is especially applicable to the rare case treated by Dr. Oldham, in which was found a complete retroversion at the full period of utero-gestation, and where the very serious obstacles to the patient's delivery were most skilfully overcome by that gentleman.

To these cases, I beg to add from my own experience, three others, which on perusal, will be found to differ widely from each other both as to cause and symptoms, and are not without much that is interesting in their varied details.

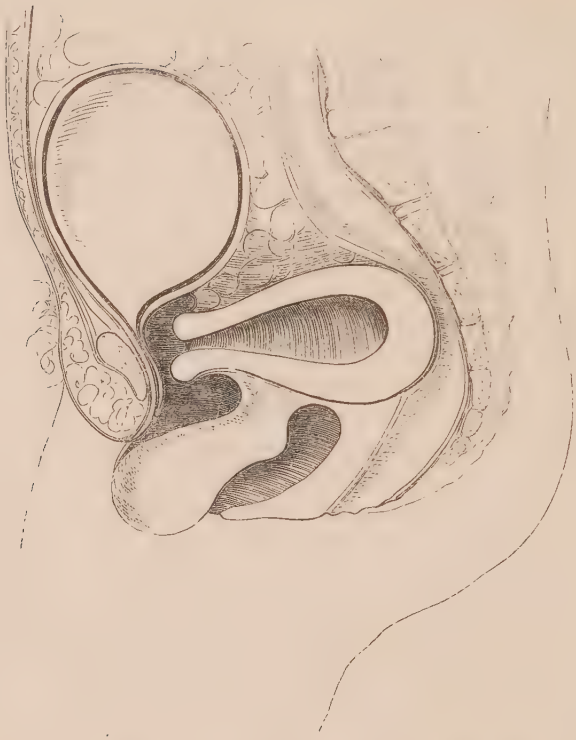
Case 1.—*Retroversio uteri, with prolapsus vaginæ after delivery, at the eighth month of utero-gestation.* Early in May, 1844, Mrs. C—, of Drypool (a suburb of this town), was delivered of her fifth or sixth child, at the end of the eighth month of utero-gestation. Her labour was natural and safe, but lingering, evidently from systemic debility, she being a person of lax fibre, and delicate constitution. She had suffered from vaginal prolapsus during the latter end of the fourth month of her late pregnancy, a circumstance with which I became first acquainted when she was under treatment after delivery. Her infant was still-born. On visiting Mrs. C— about forty-eight hours after labour, I found her progressing favorably, but she complained of slight difficulty in passing off her urine. I did not see her again till the afternoon of the third day, when, to my surprise, I learnt that she had had total obstruction of the urine during the last twenty hours, with urgent strainings to pass it off, and also violent bearing down efforts, apparently of an uterine character. The abdomen was tense and tender, pulse very feeble and frequent, tongue white, but moist, skin hot, thirst great, &c., also straining efforts to empty the rectum, but no stool. In proceeding to draw off the urine, I found *a smooth tumour of the size of a large orange protruding from the vagina,* which I greatly feared was the inverted uterus; and the more so, as I could feel nothing like the os uteri on any part of its surface.

Passing my forefinger within the os externum, *posteriorly* to the tumour, I followed the vaginal wall upwards about two inches, where it became reflected back upon itself, and formed the posterior wall of the prolapse. Tracing this surface downward, I soon found my finger external to the vagina, and, passing it over the apex of the tumour, I followed its *anterior* wall upwards about one and a half inches, when it was again reflected backward about an inch, this reflection forming the posterior wall of *a second but small tumour,* beyond the apex of which I could not at present reach.

I emptied the bladder, and found the urethral orifice drawn inward behind the symphysis full half an inch; three

and a half pints of clear straw-coloured urine were drawn off, greatly to the relief of the patient. My attention was next directed to the smaller tumour above alluded to; this was found lower than before, and I was now able to pass my two fingers beyond it into an extended and corrugated fissure, which I surmised was the os uteri; this was immediately confirmed by tracing its upper or anterior lip, and the anterior wall of the vagina, down to the os externum. This discovery explained the whole case. The os uteri being placed immediately above the symphysis, the fundus uteri must necessarily be situated within the sacral hollow; and this again would account satisfactorily for the bearing down efforts with the tenesmus, &c. Passing the index finger posteriorly to the large vaginal tumour, I found the body of the uterus immediately above it, with the fundus uteri pressing low down on the rectum. *The large protruding tumour, therefore, consisted of a duplicature of the posterior wall of the vagina; the lesser one, of the swollen posterior lip of the os uteri.*

Placing the patient on her knees with her head low, the protruding vagina was easily returned within the os externum. Passing all four fingers within the vagina, I pressed back the retroverted uterus through the pelvic brim without much difficulty, when it immediately tilted forward, and resumed its proper position. The woman was now carefully laid down, and her pelvis kept elevated; a sponge also was passed within the vagina, and the urine drawn off twice daily for several days; the sponge was cleansed night and morning, and reintroduced charged with astringent lotion. The bowels were occasionally opened by small doses of Ol Ricini, in the horizontal position of the patient. Pursuing this course, the parts within the pelvis gradually recovered their tone, and the patient, after a few weeks, resumed her usual avocations. The sponge pessaries were continued some time, and were gradually reduced in size, the patient ultimately dispensing with their use altogether. As I heard nothing further from this female, I conclude she remained free from ailment.



NOTE.—The appended drawing, made when the patient was still under treatment, will serve to illustrate the abnormal positions of the different pelvic viscera, as they were found when first brought under observations.

The question naturally presents itself, how came the uterus to be *retroverted* at this early stage after labour? It is undoubtedly a rare occurrence, being the only case I have met with in a large obstetric practice of forty years, nor do I recollect ever reading of a similar case. Is it not probable that, as a result of the greatly relaxed condition of the posterior vaginal wall, the *body* of the uterus descended so low into the pelvic cavity, as to allow of the fundus settling down *beneath* the promontory of the sacrum? The anterior wall remaining moderately firm, would, with the cervix uteri, remain about as high up as the plane of the pelvic

inlet, in close connection with the cervix vesicæ. The altered position of the uterus would necessarily press the neck of the bladder against the symphysis pubis, and so obstruct the flow of urine. As the bladder enlarged, the cervix uteri would become still more elevated, and the fundus and body of the uterus would be tilted over into the recto-vaginal space, filling the lower chamber of the pelvis, and forcing externally the relaxed posterior vaginal wall.

The case is one of considerable interest, and in its curative results, more decided than might have been reasonably calculated upon.

Case 2.—*Retroversio uteri at fourth month of pregnancy, with ovarian tumour; reduction; delivery at full time. Death fourteen days after. Intestine strangulated by the ovarian tumour.* On the morning of the 7th of May, 1844, I found Mrs. W—, of Sutton, labouring under obstruction of urine. It had been retained about sixteen hours; the abdomen was tumid and tender, skin hot, face flushed, with countenance expressive of intense suffering. The attack was sudden, the urine having been discharged freely the preceding evening.

She was about the conclusion of her fourth month of utero-gestation, and I suspected that the attack had been occasioned by *an ovarian tumour of the left side,* which had seriously obstructed the delivery of her first infant in the preceding August. I thus thought, because this was the precise period when such a tumour might be supposed to produce special inconvenience from its obstructing the passage of the uterus through the pelvic inlet into the abdominal cavity.

On examination, the uterus was found to be *retroverted,* its fundus lying deep within the recto-vaginal pouch. From three to three and a half pints of urine were drawn off without much difficulty, to the immediate relief of the patient's sufferings.

She was now placed on her knees, with her head depressed to the same plane; four fingers of the right hand, lubricated, were next passed within the vagina, and steady pressure ex-

erted on the dependent uterus. The resistance was very considerable, but after a while it was overcome, aided, no doubt, by the pressure being exerted towards the right side of the pelvic inlet. The uterus being once fairly within the hypogastrium, the patient was let gently down on the bed, on her left side; ordered to maintain the recumbent position a few days, with the nates elevated, and to rest chiefly on her left side, in order that the ovarian tumour might fall outwards into the fossa iliaca. She was also directed to pass urine every four hours in the position now named, as also the fæces, should any pass within the next two days. On calling the day following, I found both bladder and rectum had been freely emptied, without any inconvenience to the patient, except that arising out of her horizontal posture. Mrs. W— maintained the recumbent position chiefly for about a fortnight; during which period the uterus rose fully into the abdomen, and she had no further inconvenience from the tumour during her pregnancy. It ought to have been observed above, that no extra exertion on the part of Mrs. W— had been made on the day on which the retroversion occurred; and further, that she had experienced fœtal movements several times prior to the uterine displacement. Keeping these two circumstances in memory, it is fair to conclude that the impinging of the ovarian tumour over the left side of the pelvic inlet mechanically prevented the uterus ascending into the abdominal cavity, and had, conjointly with an over-distended bladder, caused it to tilt backwards into the recto-vaginal space.

The termination of this case was most melancholy. Mrs. W— was taken in labour at her full term on the 19th of October following, and was delivered of the infant ere I could arrive at her bedside—*ergo*, the tumour had evidently been kept out of the way by the enlarged uterus, and had proved no impediment to the second delivery. The placenta passed naturally, and everything portended a happy recovery. The contrary, however, was the issue of the case. About forty hours after the delivery, severe pain of the left side set in with obstinate constipation for two days, and requiring for

its removal the frequent administration of powerful aperients and enemata. Leeches were freely applied to the side, and repeated next day over the pubic region, to which the pain had extended. The aperients and enemas were continued at intervals. The bladder required the use of the catheter twice daily till death; the pulse rose to 140 per minute; abdomen became tumid, skin hot, great thirst, &c., all of which symptoms were relieved by free evacuation of the bowels, but returned again the succeeding day, with violent vomitings of bilious matter, tympanitic abdomen, continued constipation, and rapidly decreasing strength; thus the case proceeded, with little variation of symptoms, till the 2nd of November, when the patient succumbed to her malady; it being fourteen days from the delivery during the last two of which she frequently vomited feculent matters.

Necropsy.—A large pear-shaped fleshy-looking tumour, of the size of a pint basin, was found occupying the left side of the abdomen, *connected with the left ovary by a long slender neck,* to which the small intestines were firmly glued by plastic lymph. They were chocolate-coloured from congestion and strangulation; especially one fold, *which, being glued to, and twisted round the neck of the tumour, was completely strangulated.* The tumour had doubtless become more dependent since the labour, and its neck was found twisted round the left Fallopian tube, carrying with it the adherent intestines, and hence the fatal obstruction of the bowels.

A more detailed account of this deeply interesting case from its beginning, in 1843, to the final issue, may be seen in the 'Lancet,' for April 5, 1845, fol. 381.[1]

Case 3.—*Retroversio uteri, associated with excessive hæmorrhage, and the expulsion of an ovum deforme, during latter gestation.* In May, 1847, I was desired by the midwife in attendance, to see a woman who, early in the morn-

[1] A case similar in its nature to the above (*i.e.*, as to its fatal termination from strangulated intestine, in connection with the neck of a large ovarian cyst) will be found in the 'Lancet' of April 25th ult., by Dr. Gull.

ing had been seized with alarming hæmorrhage, which had continued more or less throughout the day; the patient considered herself near the full term of utero-gestation, but in this matter she evidently had laboured under a mistake.

The woman's appearance was ex-sanguineous, and she had fainted several times; her features were sunken and depressed, pulse very feeble and rapid, and she whispered me that she had passed a "bucketful of blood" since the morning.

On passing my finger within the vagina, I discovered a well-defined substance of the size of a man's fist, but could not reach its upper part; I therefore passed the whole hand within the vagina; and now, high up in the anterior aspect of the pelvis, I discovered that it was connected with a small fissure in the uterus by a rather slender pedicle: this substance I at once separated, and withdrew from the vagina. Laying it aside for the present, I resumed my examination of the uterus, the situation of which, with its presenting part, were equally peculiar and abnormal. In the first place, I could discover no shoulder of the uterus, and further, there was an entire absence of cervix and os uteri; neither, on passing my left hand over the woman's abdomen, could I discover any uterine tumour.

Examining the *fissure* whence I had separated the now extruded mass, I attempted to pass my finger through it into the uterus beyond, but failed at first, the finger not discovering any passage, but feeling as if in contiguity with the pelvic walls. A more careful exploration discovered a small aperture, into which the finger was pressed, and was directed downwards and backwards towards the anus. Withdrawing the finger, I commenced a careful examination of the sacral hollow, and here I found the body of the uterus, *retroverted*, and filling the recto-vaginal pouch.

By placing the woman on her knees, and depressing her head and shoulders, then using pressure by my four right hand fingers within the vagina, the uterus was speedily elevated, and passed through the pelvic inlet into the hypogastrium. I now found matters, per vaginam, presented

their usual appearance and position, except that there was neither os nor cervix uteri, but a mere oval slit; through this I passed two fingers, and cleared out of the uterus some remains of the abnormal mass remaining there. The patient was carefully watched; no hæmorrhage followed; she was kept in the horizontal posture some time, and had a speedy and perfect recovery.

Examining the extruded substance, I found it to be an *ovum deforme* (in other words, a *genuine* but *blighted* result of conception); the separation of which from the womb I have ever found to be somewhat difficult, and attended with hæmorrhage, more or less serious; whilst, the expulsion of a *simple mole* (which is not associated with gestation, but is a mere consolidated coagulum) is usually facile, and is not ordinarily accompanied with large uterine discharge.

It is worthy of remark, that in the above case there was no circumstance present to account satisfactorily for the retroversion. The urine had not been retained inordinately, nor had the woman used any unusual exertion by which the uterus might have been displaced. It is presumable, therefore, that the displacement occurred after the commencement of uterine action, as the patient had felt no inconvenience prior to this event; and it is further probable that it was posterior to the expulsion of the large abnormal mass, as it is difficult to conceive how, in the retroverted condition of the uterus, with its aperture close upon the pelvic walls, it could have been expelled from the uterine interior.

Remarks.—Great diversity of opinion at present prevails as to the most suitable treatment of *uterine displacements*. This subject has been thoroughly ventilated in a recent discussion at one of the monthly meetings of this Society. From a careful perusal of the opinions there put forth, it is evident that no strict or specific rules can be laid down for their management. Much may be said both *pro* and *con* as to the several modes adopted for their relief; whilst experience would dictate that, each case having its own identity, must necessarily be treated in accordance there-

with. Nevertheless, I must express my entire agreement with the experience of Dr. Greenhalgh, that in uterine malflexions, but small benefit is to be expected from "the intra-uterine use of mechanical contrivances," which, in and of themselves, are not unfrequent causes of serious mischief; their application therefore, should be restricted to rare and exceptional cases.

I may further observe, that my experience is directly opposed to that of Dr. Oldham, when he states that in cases of prolapsus of the uterus and vagina, pessaries are to be rejected as prejudicial. In my own practice, I have found their judicious application of the greatest advantage in some of these cases. Neither can I agree with Dr. Barnes, that the globular pessary is a necessary evil. I am in the frequent use of globular (or egg-shaped) sponge pessaries in cases of *prolapsus*, and find from their adoption the greatest advantages, when charged with astringent solutions, replaced twice daily, and reduced in *size* from time to time, till their use is no longer indicated. One of the cases just narrated was treated after this fashion, and with complete success.

December 2nd, 1863.

Dr. OLDHAM, President, in the Chair.

Present—42 Fellows and 8 visitors.

The following gentlemen were elected Fellows:—Drs. Davis, Savage, and Swyer; Messrs. Bryant, Chisholm, Griffiths, Morgan, and Sequeira.

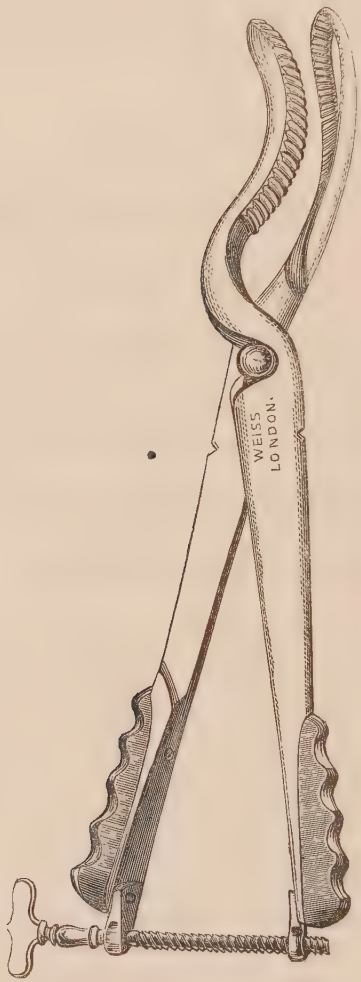
Dr. Gervis and Mr. Ray were appointed auditors.

Dr. Barnes exhibited and described a new

CRANIOTOMY FORCEPS.

It combined the advantages of the instruments of Professors Simpson and Murphy, and by a further contrivance added by Dr. Barnes was rendered much more effective than any other instrument with which he was acquainted. The elbow on the inner blade, allowing free room for any fold of scalp at the point of perforation, permitted the duck-bill-toothed portions of the blades to be pushed high up to secure a firm hold of the cranium, without the danger of straining the lock. By this means the blades were always kept in perfect parallelism, ensuring a widely-diffused grasp of the cranium, and avoiding the risk of tearing away. Having properly seized the cranium, it became a point of great importance to secure the hold in a manner to save the operator the fatigue and muscular strain of pressing the handles together, whilst at the same time considerable extracting power is required. For this purpose he had adapted

a powerful screw which united the extremities of the handles, setting the blades fast at any interval required. Another



advantage provided for was the fitting the blades with a modification of the French forceps-lock, so that the instrument could either be used as one piece, or the two blades

could be applied separately. The entire length of the instrument was fifteen inches. Dr. Barnes said he had used the instrument several times, and that its grasp and action were so perfect that he had never been obliged to take a fresh hold. It was made by Weiss.

CASE OF OVARIAN DROPSY, TREATED BY TAPPING AND PRESSURE; APPARENT RECOVERY FOR THREE AND A HALF YEARS; RETURN OF DISEASE; OVARIOTOMY; RECOVERY.

By I. Baker Brown, M.R.C.S.
SENIOR SURGEON TO THE LONDON SURGICAL HOME.

Miss D—, æt. 30, four years ago, was a patient in the Home, with unilocular ovarian dropsy, which was treated by tapping and pressure, and she left the institution apparently cured, and continued perfectly well for three years and a half, when she again began to enlarge, and on consulting Mr. Brown he found a return of the disease, and recommended ovariotomy; and as she was in remarkably good health, and no adhesions could be discovered, Mr. Brown prognosticated a good recovery.

On November 9th she was re-admitted into the Home, and on the 19th ovariotomy performed in the usual way. A very small incision being made and not the slightest adhesion being found, the cyst readily followed the traction of the forceps as the fluid escaped through the canula; the pedicle was broad, and the cyst—one large one, with several small ones on the outer coat—was found to grow entirely from the broad ligaments on the left side, and the ovary was quite healthy and free; clamp applied and usual dressing.

No single symptom followed, and she is now really well.

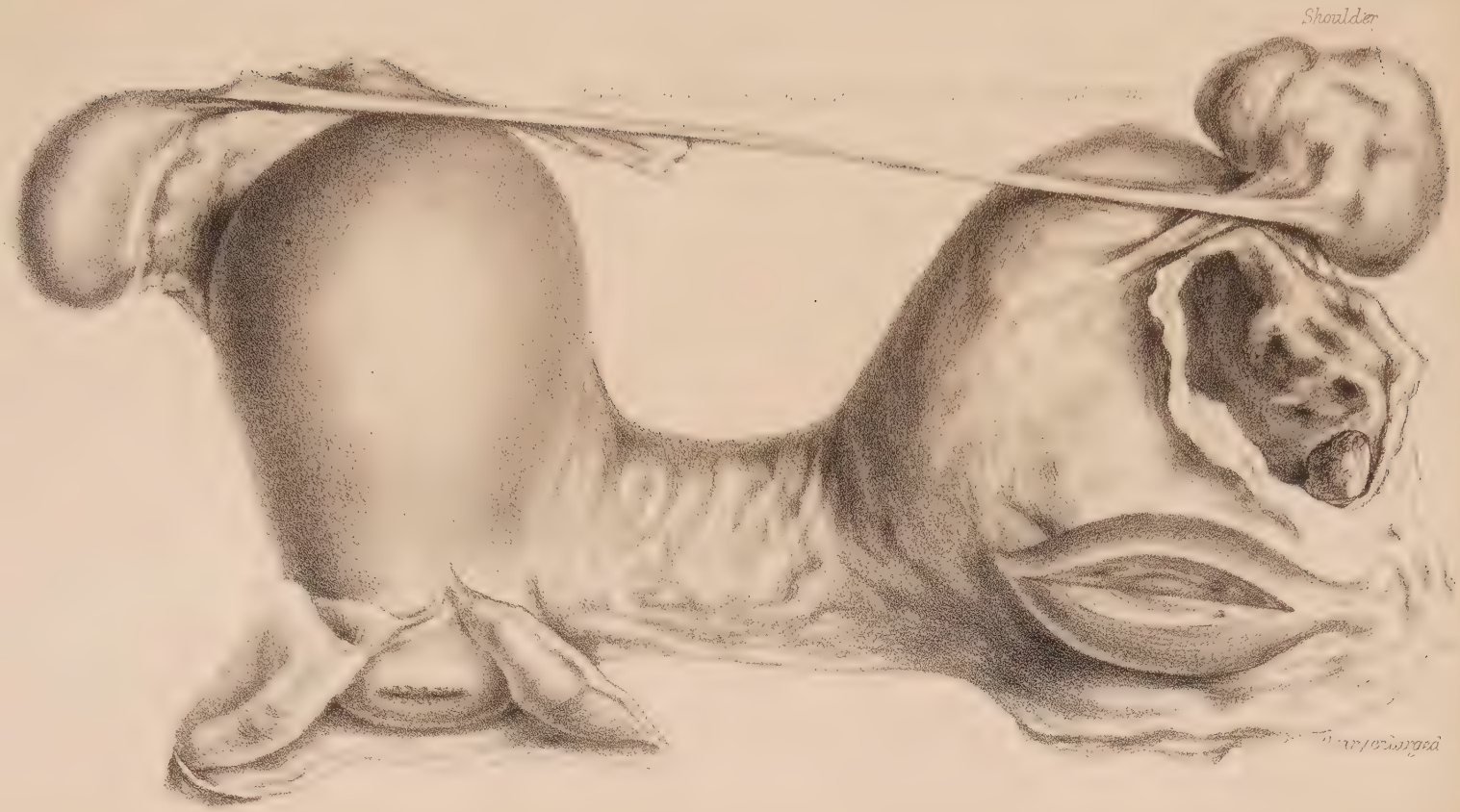
Remarks.—This case is one of essential interest just now, as proving that no adhesions were produced by the previous tapping and pressure.

CASE OF EXTRA-UTERINE FŒTATION, IN WHICH TWO FŒTUSES WERE FOUND IN CONNECTION WITH THE SAME TUBE.

By N. J. Haydon, Esq., M.D., &c.

(Communicated by Dr. Tyler Smith.)

S. C—, a young woman, servant, died after a few hours' illness, from rupture of the sac of tubal fœtation, and consequent hæmorrhage; whose history was as follows, as far as could be traced. Between four and five years since she was supposed to have been pregnant, and to have aborted. No fœtus, however, was seen. At this time she was very dangerously ill, and for some time not expected to live. The medical man who attended her then taxed her with it. She had at that time a sweetheart, who believing her to be pregnant, ran away to sea. About six months before her death he returned, and a fresh intimacy took place; and he again neglected her shortly before her death, which was supposed to have been caused by poison taken to procure abortion. No evidence, however, was elicited at the inquest on this point; but she complained twenty-four hours before death of pain in head and stomach and bowels, though she did not seem in very great pain. She continued in a very low state the whole time of her illness, during which she had several fits, and died twenty-four hours after the commencement of the attack. It should be stated that there was no medical evidence of the symptoms during life, and therefore their character is very imperfectly described.


Shoulder
Umbilical cord

The post-mortem examination showed all the organs healthy, except the uterus and appendages, which are described in the report below.

In the peritoneal cavity blood was found as follows:—extending upwards six inches from pubes was a mass of dark clotted blood; this mass also extended seven inches towards left ilium, and from ten to twelve inches on the right side up to and round the duodenum. In the pelvis was found several pounds of dark clotted blood. The fœtus, which had escaped from the ruptured sac (see report), was with its placenta and membranes loose in the pelvis.

REPORT ON THE SPECIMEN,

By Dr. Tyler Smith and Dr. J. Braxton Hicks.

Uterus nearly four inches long, two inches wide. The walls proportionately thick. Interior of uterus lined with a very thick, decidual membrane now easily separable. This layer is quite as thick as is found in normal gestation at its fullest development, and under the microscope is found to possess the elements of the decidua of pregnancy. It is uncertain whether the so-called Montgomery cups are present.

The left ovary and Fallopian tube are normal in position and structure. The *right* tube, however, passes off from the uterus, at one and a half inches below the fundus, while that on the left at only three quarters of an inch, which gives the appearance as if the right tube arose from the middle of the uterus. The length of the right is much greater than the left, being, including the sac (to be described below) four and a half inches, while the other is only three inches. This is by no means owing to the development of the sac itself, for whereas the distance from the uterine end of the ovary to the uterus on the left is three quarters of an inch, that on the right is two and a half inches.

Extra uterine sac.—At about one and a half inches from the uterus in right side the tube is dilated into a sac, now

about three inches diameter, probably originally globular in form when full. The walls are made up throughout of hypertrophied muscular fibre, and the thickness varies much in different parts; that near the uterus being almost half an inch thick, while the outer part, where there is a rupture, it is reduced to the thickness of parchment. Through this rupture the fœtus and appendages escaped. The ovary was twice the size of the other, and attached to about the middle third of the sac. A corpus luteum was found in it, approaching the development of that of a sixth months' normal pregnancy except that the centre was already filled with a white structure, and seemed to have possessed a well-defined border to the cavity. Its colour also was very pale, and feebly shown so as almost to escape observation. It was probably thus influenced by the death of the fœtus at a period before it had gone through the full changes of a normal corpus luteum.

The other ovary possessed no such structure.

The fœtus which had escaped was the size of that of about a three months' pregnancy, enclosed in its own ovular sacs, the principal part of the placenta escaping with it. A clot also is appended, probably was found within the sac, and took part in increasing its tension. The head is flattened, scarcely any bony structure to be felt, and the whole had a shrivelled appearance, and had been dead some time before the mother died.

So far there is nothing unusual in the case; but appended to the edge of the rent in the sac is a small irregular solid mass of the size of a large walnut, which upon examination proves to be a small fœtus, packed very tightly within a membrane, the base of which is adherent to the outside of the sac by firm membranous adhesions which form a narrow pedicle. It is our opinion that it is attached to the exterior of the sac. By changing its position it appears distinctly to be so, although at first sight, there is some difficulty in distinguishing inasmuch as it is fixed on the edge of the rent.

This opinion is much confirmed by the fact that a band

which comes from the other Fallopian tube is attached to the pedicle in such a manner as to show it could not have been but outside.

As regards the enclosed fœtus, the scapulæ can be plainly seen on either side with the bones of the arm. A section was made through the dorsal aspect in middle line, the vertebræ were partially formed, and the cavity of the cranium, enclosing a granular yellow mass, full of plates of crystals.

The muscular tissue on the back of scapulæ retained their fibrous sheaths, still possessing much toughness. There was no trace of any ovular structures beyond the enclosing membrane.

From hence we infer the following:

1st.—That some time since the patient had conceived extra-uterine; that the fœtus was attached to the fimbriated extremity of the Fallopian tube, in such a manner as not to form impediment to subsequent conception. That this fœtus died at about the second month of pregnancy, enclosed still in its ovular structures, that it then dwindled gradually away to its present state, the chorion villi being absorbed.

2nd.—That at a later period, probably some six months before death, she again conceived, also extra-uterine, but the ovum had this time descended to the middle of the tube, that it was there arrested, lived about three months, and then died, three months after which the sac bursted ensued.

It appears probable that the position and length of the Fallopian tube was owing to a congenital abnormal arrangement of the parts. It seems improbable that the development of one side of the uterus could have been the cause, inasmuch as the interior of the uterus was perfectly symmetrical, and the walls of equal thickness.

ON A CASE OF DISTENSION OF THE UTERUS IN A FŒTUS IMPEDING LABOUR.

Exhibited by Henry Gervis, M.D., Lond.,
ASSISTANT-OBSTETRIC PHYSICIAN TO ST. THOMAS'S HOSPITAL; PHYSICIAN TO THE SURREY DISPENSARY, &C.

Dr. Gervis exhibited the body of a female child sent to him by Mr. Woodhouse, of Fulham, in the completion of whose birth after the passage of the head extreme difficulty was experienced, owing to a great enlargement of the abdomen in the hypogastric region. Delivery, however, was finally effected by traction, and the woman made a good recovery.

REPORT UPON THE SPECIMEN,

By Dr. J. Braxton Hicks and Dr. Gervis.

The bladder and urethra, kidneys and ureters, were normal. The labia majora were very small; the vulva and vagina were wanting. The clitoris was prominent, and the urethra opened at its extremity. The uterus was greatly distended and very tense; of a globular form, and containing about three quarters of a pint of flaky, serous fluid. The cornua were much developed; in length they somewhat exceeded an inch, and permitted the little finger to be passed into them from the interior of the uterus, through openings about half an inch in diameter, and of a valvular character. They were completely closed at their free extremities, nor could any fimbriæ, or other evidence of a Fallopian tube (excepting these closed cornua themselves), be discovered on either side. The ovaries were flat, almond-shaped, about half an inch long, and attached to the side of the uterus at the base of each cornu. The uterus was found to be divided internally into two cavities by a vertical septum, thinner in substance than the walls, and presenting near the fundus an oval opening

of about half an inch in diameter, permitting communication between the two sides, but there was no trace of either os or cervix, the double uterine cavity being thus completely closed. The uterine walls were thin, and their inner surface was smooth and polished like a serous membrane. There was no vagina. The lower half of the rectum was absent, and the upper part terminated in a *cul de sac*, which was attached to the back of the uterus about its centre. The usual place of both rectum and vagina was occupied by cellular tissue. There was no anal aperture, its site being simply indicated by a shallow depression. When the abdomen was first opened, a small quantity of flaky ascitic fluid escaped; coils of the small intestines were extensively adherent among themselves, apparently by inflammatory products, and adhesions also existed in other parts of the peritoneal cavity.

THREE CASES OF LABOUR OBSTRUCTED BY ABNORMAL CONDITION OF THE FŒTUS, WITH SOME OTHER POINTS OF INTEREST.

By J. Braxton Hicks, M.D. Lond., F.R.S.
ASSISTANT OBSTETRIC-PHYSICIAN TO GUY'S HOSPITAL.

Thinking that perhaps these cases may be interesting to this Society, I have drawn out a short notice of them, and brought the fœtuses for inspection.

Case 1.—Ascites of fœtus; cystic distension of pelvis of its kidneys from obstruction in both ureters; peculiar state of placenta; puncture by crotchet; recovery.

Mrs. ——, about thirty-six years old, had one child fourteen years ago; now in the seventh month of pregnancy. She had for three weeks been suffering from irritative feverish

symptoms, scanty urine, œdema of legs, thirst, &c. I found the abdomen distended by a tumour nearly the size of a uterus at full term. This proved to be the uterus, by its alternate relaxing and contracting. The fœtus was easily detected by ballotment per vaginam. There was very distinct fluctuation at the fundal end of uterus. This was considered to be owing to excess of liquor amnii.

A few days after this I was sent for by her attendant to complete delivery. I found the child born as far as the thorax, but the remainder had refused to come away. The uterus was very tightly clamped round the child, especially at the os, through which I could not introduce my hand. I therefore gave chloroform; in a few minutes I passed it easily, and found that the abdomen of the fœtus was very large. I punctured the parietes with the crotchet; about two quarts of fluid instantly escaped with great force, and the child was expelled by the natural efforts almost instantly after. Another quart of fluid was found in its abdomen. The placenta was detached, very large, and ragged, pulpy to the hand, which had to be introduced for its removal (there being some hæmorrhage), otherwise the labour terminated well.

On examining the fœtus it was found that the abdomen had been distended by ascitic fluid to the size of an uterus at the sixth month of pregnancy. Both ureters were completely occluded near to the bladder for one third; above this point, however, they began to be distended till they reached the kidneys, the pelves of which on both sides were distended into cysts, having on one side a diameter of three, and on the other, of two inches. Some fluid was found in the bladder, showing that the ureters had once been pervious. There were a few flakes in the abdominal fluid, but no marks of peritonitis. There was œdema of penis and scrotum.

Remarks.—The condition of placenta, as far as I am aware, was uncommon, at least I have not noticed it before, nor have I met with its description in books. I have men-

tioned above its pulpy feel while in utero. On removal it was found that the whole of the villi wanted cohesion. When placed in water, the various branches floated from one another their entire length, resembling while distended with blood, fronds of fine red seaweed, and feeling also like it when seized under water. I would venture to suggest that it originated from an œdematous state of placenta—a consideration partly borne out by the fact that before the membranes broke a considerable quantity of bloody water came away, which the medical attendant could not understand, because the animal fluid was discharged quite clear and very forcibly, as if there had been no loss of tension. It seems reasonable to suppose that the pressure of the ascitic fluid had retarded the return of the blood from the placenta, while the arterial force had overcome that compression, thereby causing congestion of the capillaries of the placental villi and œdema as a consequence. It is possible that in some cases the watery discharge in pregnancy, without rupture of amnial sac, may be thus explained. The diagnosis of the ascitic condition of the child is very difficult before labour, if not impossible, and is very liable to be mistaken for excess of amnial fluid.

Case 2.—Enormous dilatation of abdomen of fœtus, from distension of the bladder; puncture by crotchet; recovery.

This case was precisely similar to the one just related, both in the difficulty of delivery and in the treatment, except that when the crotchet first entered the parietes, no fluid escaped; but on its being withdrawn it was brought out at another point lower down, upon which a quart of fluid escaped. The child was quickly expelled, about another quart of fluid remaining within its abdomen. Upon examining the body, the distension was found to be wholly owing to the detention of fluid within the bladder. It was of light straw colour. It was curious that no impediment could be found in the urethra; a wire passed quite readily from within to without. No other disease was found.

The patient did well. The value of chloroform and the

rapidity of its action were very noticeable in this case, for without it the discovery of the cause of detention and the treatment apparently would have been impossible from the powerful action of the uterus. The patient was almost immediately under its influence, only five minutes elapsing from its first inhalation to the delivery of the child.

Case 3.—Very great distension of uterus; dropsy of the amnion; very large tumour on fore part of neck of fœtus; induction of premature labour; fœtal tumour punctured; recovery.

Mrs. ——, about thirty-five years old, has a child twelve years old, has recently married, and was, when I saw her, about the seventh month of pregnancy. Had been going on as usual up till a month before, when she was attacked with diarrhœa (motions four or five times a day). She also began to increase rather rapidly about that time, but more notably for the last fortnight, during which period she suffered very distressingly from dyspnœa, œdematous legs, and from excessive cumbersomeness.

I found her scarcely able to move from the tightness of breath. The extremities and lips were livid, and the legs so swollen that they could be moved only with difficulty. Vomiting had been and was still a troublesome symptom; her tongue was preternaturally clean; the bowels had been quieted by medicine; the urine was high-coloured and scanty, but free from albumen.

I found the abdomen enlarged to nearly the size of the largest ovarian tumour, of one which when tapped would probably have yielded a house bucketful and a half, or six gallons. The integuments were tense to a degree. The form of the swelling was oblique, from left side below to right above. The whole gave distinct fluctuation, which was, however, much more distinct above than below; the walls seemed also denser below. Upon careful examination a fœtus was made out in the left inguinal region; no sound was audible, nor had any movement been felt by the mother for two weeks. There was nothing peculiar felt per vaginam, nor were the membranes apparently very tense when felt

through the cervix. It was by careful examination ascertained that the fluid was not in the peritoneum, but enclosed. The whole appearance was remarkably like that of ovarian dropsy, complicating pregnancy, the more so because there was a slight oblique depression between the middle and lower third of the swelling. However, as it was clear she could not go on to full term, I recommended the membranes to be ruptured, which next day was performed by her medical attendant, Mr. Charles F. Browne, of Camberwell, to whose kindness I am indebted for the remaining history of the case and for the fœtus.

Upon the rupture of the membranes, a prodigious amount of fluid escaped, a quantity was lost in the bed and on the floor, but a foot panful was caught. It was thought to be nearly three gallons. She was now reduced to the size of an uterus at full term. Much fluid escaped till labour set in, which was in about twenty-four hours. When pains had fairly commenced, another bag, apparently of membranes, presented. This detained the progress of delivery for some time, and was the tumour (now flaccid) which you see in this fœtus. After waiting some time, and after due consideration, Mr. Browne punctured this, and sero-sanguineous fluid escaped in moderate quantity. The vertex then gradually descended, the pains being strong, and the remainder of labour terminated naturally. The placenta was expelled properly without hæmorrhage. The uterus contracted well afterwards. The patient was about again within the ordinary period.

Remarks.—The principal practical point in this case was its great resemblance to pregnancy complicated with ovarian disease, and I am at a loss to see any symptoms by which it could be distinguished from it, the excessive tension of the parietes would have veiled any division between the two organs had they coexisted. It teaches us caution in the use of the canula in cases of pregnancy.

From examination of works on the subject, and of our museum at Guy's Hospital, and the Hunterian museum, it

appears that the abnormal growth in the fœtal neck is not common; and it might well cause perplexity upon its first presentation. I am told it felt exactly like the natural membranes.

Dr. Graily Hewitt remarked, that the occurrence of cases such as those brought before the Society by Dr. Hicks favoured the idea that normally a secretion and excretion of urine from the fœtus was going on during intra-uterine life. He alluded to cases recorded by Mauriceau and Depaul similar to Dr. Hicks's case.

Dr. Hicks was invited to report further on the tumour, conjointly with Dr. Gervis.

REPORT ON THE NECK-TUMOUR OF THE FŒTUS IN DR. HICKS'S THIRD CASE, ABOVE NARRATED.

By Dr. Braxton Hicks and Dr. Gervis.

The whole of the fore part of the neck was distended laterally, to the diameter of, when full, not less than seven inches, projecting forward probably an equal distance. It was impossible accurately to give the diameter, the tumour having been much shrivelled by the spirits in which it was immersed, and by the tapping at birth. It extended into the cheeks as far as the eyes, into the lower lips, and into the tongue; all which parts were much distorted by the swollen appearance.

On dividing the tumour in the median line, it was found to be composed of numberless cysts varying extremely in size from two or three inches to that of a pin's head. The larger were found on either side the median line about the middle of the neck; the smaller were found more on the outskirts of the tumour. The cavities were mostly flattened, the long diameters parallel to the surface. The cheeks and tongue were invaded by them; they contained a sero-sanguineous fluid. The cavities were some of them connected, but this was not the case with the major part; they were lined with a

serous-like membrane. They appeared to dissect out the important structures of the neck, passing round them in all directions. These structures, nerves, blood-vessels, &c., could be seen passing down almost isolated through the anterior part of the neck as far back as the sterno-cleido mastoid muscles. The trachea appeared not to be involved.

The disease seemed to be situated in the cellular tissue, the meshes of which had been distended by either sero-sanguineous fluid effused within it, or by the development of delicate-walled serous cysts, burrowing in all directions. To the former explanation we incline, but in what manner the effusion of fluid had taken place it is impossible to say.

ON DISTENSION OF THE BLADDER, CONSIDERED AS A CAUSE OF POST-PARTUM HÆMORRHAGE.

By J. Lumley Earle, M.D.

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Of the numerous causes which have been considered as capable of producing flooding after labour, that of distension of the bladder has not hitherto been mentioned in any of the principal treatises on Midwifery. My own attention was drawn to it about one year and a half ago, through the great similarity of the answers which I repeatedly received to one of the questions usually put to patients on the first visit after delivery: "Have you lost much?" The answer frequently given was, "Yes, sir, until I made water." I do not for a moment think that in all these cases the hæmorrhage was due to distension of the bladder, for some of them will bear a different explanation. It is not uncommon for blood to collect and coagulate after delivery in the upper end of the vagina, which is much more capacious and baggy than its vulval extremity. From these clots a continual draining of blood continually goes on, and gives to the

patient the notion that she is losing a great deal. In three or four hours after the termination of labour she turns over on her knees, or, may be, sits up, for the purpose of emptying the bladder. During the exertion made, and from the position necessarily taken by the patient, the clots collected in the vagina slip out, and the draining from them also of course ceases. In such cases the full bladder and the free draining of blood do not stand in the relation to each other of cause and effect. The above explanation will not, however, hold good in every instance, for I have met with six cases of flooding which were in my opinion distinctly set going and kept up through the injurious influence of a distended bladder upon the lately parturient uterus.

The points worthy of consideration are, first, the mode in which distension of the bladder affects the uterus, so as to induce flooding after delivery; secondly, the signs and symptoms of a distended bladder before and after delivery; and lastly, the treatment.

The Pathology.—The bladder when distended, from its intimate connection with the lower fourth of the uterus, readily displaces or dislocates that movable organ. It may displace the uterus in four directions—either backwards, as in retroversion; upwards, or to one side, as may be noticed after delivery; and downwards, if the bladder should also be prolapsed.

After delivery, the two most common misplacements of the uterus from a full bladder are, directly upwards, or to one side of the central line. The result of the bladder pushing the uterus out of its proper position is that it prevents the uterus from contracting perfectly. A great many of the causes of post-partum hæmorrhage act by inducing imperfect contraction of the uterus. Flooding after labour is far too frequently attributed to inertia. Some may suppose that inertia and imperfect contraction of the uterus are synonymous terms; but they should never be employed as such. It is true that we cannot have inertia without imperfect contraction; but we may have imperfect contraction of the uterus without inertia. Of that fact I will give two

examples, one acting from within the uterus, the other from without. Hæmorrhage after delivery sometimes arises from the presence of clots in the cavity of the uterus. Two of the chief symptoms are severe after-pains, and a *tender* condition of the uterus; and so tender indeed that the patient cannot bear sometimes the uterus to be hardly touched through the abdominal walls. Here there is no inertia, as evidenced by the after-pains and irritable condition of the uterus, but there is imperfect contraction. The clots prevent the uterus from contracting to its minimum. Remove the clots either by pressure or the introduction of the hand, and the hæmorrhage at once ceases. The other example is hæmorrhage brought on by distension of the bladder. As clots induce imperfect contraction of the uterus from within that organ, the bladder prevents perfect contraction from without. There may be no inertia in this case; remove the urine, the uterus at once returns to its original position, and the flooding stops.

The diagnosis of distension of the bladder before delivery is important for one or two reasons: we may save the bladder from rupture; at all events we may give our patient great relief; and lastly, but not least, we may by timely aid prevent flooding from coming on after the birth of the child. When the bladder is full before delivery, generally the sufferings of the patient are very much aggravated. At every uterine contraction the uterus is thrown forwards, and produces considerable pressure upon the bladder. A distended bladder of itself causes pain. Therefore how great the suffering must be when the pain of uterine contraction is intensified by that of a distended bladder severely pressed upon. The countenance and attitude of the patient draws our attention at once to the agony she is undergoing. Instead of bearing down as is usual with women after the os is fully dilated, the pain seems too great; the mouth is kept wide open, and the eyelids also; the eyes are fixed, the eyebrows knit, the breathing is suspended for a moment, the chin thrown forwards and upwards, and the shoulders raised. The whole appearance of the patient

leads one to fear that, if the uterine contraction were only to last a little longer, some grave accident would certainly take place. Notwithstanding the severity of the pain, the progress of the labour is often slow. When the uterine contraction passes off, of course the pain is very much less; but the patient still complains of an uneasy sensation in the hypogastric region, and she tells you that the pain never goes quite off. Such symptoms as unusual suffering, the progress of the labour not being by any means equal to the severity of the pain, and there being no obstruction to the birth of the child to account for the slow but very painful labour, should be quite sufficient to make us suspect the condition of the bladder, and make it advisable to pass the catheter, even if the patient should tell us that she has emptied her bladder only a short time ago. We cannot tell readily by an abdominal examination before delivery whether the bladder is full of urine, because from the pressure of the gravid uterus, the bladder is flattened from side to side, rendering the sense of fluctuation rather obscure, and also from the abdominal cavity being so uniformly distended by its various contents. The diagnostic signs of a distended bladder after delivery are more conclusive.

We can at any time study them by telling a patient lately confined not to empty the bladder for ten or twelve hours, and we shall then be able to examine at leisure the effect of a distended bladder upon the uterus. The proper position of the uterus after delivery is the hypogastric region; but when the bladder is distended, the uterus is displaced, and its place filled up by the bladder. We find the uterus either still keeping its central position, and pushed directly upwards as high as the umbilicus or even above, or we find it lying towards one or other ilia of the pelvis. The mere fact of the fundus of the uterus reaching as high as the umbilicus or even extending above that point, would not be of itself sufficiently diagnostic of the bladder being distended, for it might be due to simple hypertrophy of its structure, or to its cavity being distended by clots. The characteristic

point is, that in distension of the bladder the continuity of the uterus into the pelvis is suddenly lost. When the bladder is empty, if we pass our hand over the uterus from the fundus downwards, we feel it dipping into the pelvis at the symphysis pubis, but not so when the bladder is full; we then feel a soft fluctuating mass intervening between the hard structure of the uterus and the pubes. If the elevation of the uterus were due to hypertrophy of its structure, or the distension of its cavity by clots, we would still feel the hard uterus dipping into the pelvis behind the symphysis; whereas in distension of the bladder we lose the hard structure of the uterus at some distance from the pubis, the space intervening being occupied by the soft fluctuating bladder. Remove the urine, and the uterus, whether it were high up before or turned to one side, will be immediately found to have descended and taken up its usual central position in the hypogastric region; the fluctuating tumour will have disappeared, and nothing but the hard uterine structure will be felt immediately above the pubes.

After delivery, if the bladder is distended, the patient often complains of a great load in the supra-pubic region, or expresses a desire to make water. If we place the tips of our fingers on the soft mass between the uterus and pubes, and give with them a sudden jerk, the patient will generally flinch and express a wish to pass water. The flinching and desire to empty the bladder is caused by a wave of fluid being urged against the sphincter vesicæ.

The treatment of hæmorrhage arising solely from distension of the bladder is of course the emptying of that viscus by the catheter. When a woman is flooding, the best way to pass the catheter is to feel for the meatus with the finger, and not by finding it with the eye. Blood is constantly draining from the vagina, and the mucous membrane is covered with it, so that it is not at all easy to find the opening of the meatus by looking for it; on separating the labia, blood immediately wells up continuously, and effectually obscures the orifice we are seeking. Of course, one unaccustomed to pass the catheter

in the female will find either way difficult, but the surgeon, who can pass the catheter without exposure, will, in cases of flooding, prefer finding the meatus by the touch, simply because it is more easy.

I have only kept the notes of three out of six cases of flooding set up by distension of the bladder which have come under my observation; and it must be borne in mind that I have been considering a distended bladder as one of the numerous causes of *primary* post-partum hæmorrhage only; for although it might induce in a few cases a slight degree of secondary hæmorrhage, I have generally noticed that if the uterus once contracts firmly, and keeps so for several hours, subsequent distension of the bladder merely displaces it, but does not affect it so as to set up hæmorrhage.

Case 1.—Mrs. F—, æt. 24; mother of three children; residing in Glover Street. I was called to attend her at 7 p.m., and found the os all but fully dilated, and the head presenting in the first position. The labour progressed very slowly notwithstanding the pains seemed almost unbearable. There being no disproportion as far as it was possible to judge in the size of the fœtal head and the maternal structures through which it had to pass, I ruptured the membranes, thinking that perhaps the retention of the liquor amnii prevented the uterus from acting efficiently. The labour afterwards certainly progressed more rapidly, but the patient's sufferings were most intense, and made me anxious lest some accident would take place. At length the child was born, and in a quarter of an hour the placenta descended into the vagina and was easily removed by traction. Having ascertained that the uterus had contracted well, I went down stairs for about ten minutes, and on my return I found a huge clot lying close to her. I applied pressure to the uterus, and it responded readily. The hæmorrhage having ceased, I again left the room for a short time, and during my absence another great clot had been expelled. The uterus was compressed, and the hæmorrhage

soon ceased. Thinking that the uterus would now keep contracted, I went downstairs for the third time, and remained away about five minutes; however, on my return a fresh clot of considerable dimensions had just been expelled, and draining was going on freely. The loss of blood was now telling upon the patient; she complained of faintness; the face and lips were pale, and the pulse quick. I now examined the state of the uterus through the abdominal walls more carefully. The uterus, although readily responding for a time to pressure, was high up; on passing my hand downwards, the continuity of the uterus into the pelvis was suddenly lost, the hand coming upon a soft fluctuating tumour, which lay between the hard uterus and the pubes. On pressing that soft mass she immediately exclaimed, "Oh, sir, I feel such a load there; if I were to make water I should feel better." I told her I perfectly agreed with her on that point, but I could not allow her in her state to use the exertion necessary in emptying the bladder. As I had left the catheter at home (a most unusual thing for me to do), I immediately sent the husband with a note for it. While he was away the hæmorrhage went on, notwithstanding cold was applied to the uterus and vulva. She constantly complained of the great load felt in the hypogastric region, and begged me to let her pass her water, as she was sure she would then be better. I gave ergot, and kept on applying cold and pressure until the husband returned. The catheter he brought back was not of the slightest use, as it was broken and very old. Therefore, under the circumstances, not feeling myself justified in leaving the patient bleeding to get the catheter, I thought it better to try first what passing the hand into the uterus would do. A few clots were removed, the uterus contracted, and the hæmorrhage ceased. I now felt it more safe to leave her, and went home and got the proper catheter. On my return I found the flooding had recommenced just as bad as ever, and the patient had fainted away. Having first administered some brandy and water, I passed the catheter and withdrew an enormous quantity of urine, the whole of which I allowed

to flow into the clothes placed under her for the purpose of protecting the bed. The hæmorrhage then ceased entirely; the uterus was now felt in its proper position; the fluctuating tumour had vanished; the sensation of a great load was gone, and she expressed great relief. The patient was, as might be expected, in a very low state during the night and the next day; but no further hæmorrhage took place, and she eventually did well.

Case 2.—Mrs. D—, æt. 35, mother of five children, residing in Regent Row, Caroline Street, had a very easy labour. The child was born in about five minutes after my arrival. The placenta came away easily, and the uterus apparently contracted firmly; but considerable draining kept up notwithstanding. I stayed with her an hour, and although she was pale, and the loss of blood seemed more than was right, the pulse was not above 80. As a slow pulse in hæmorrhage is very rare, I deceived myself with the idea that she was not losing too much. About four hours after, I happened to go near her house and looked in. The nurse said she had sent for me, and was glad of my arrival, as she had not been able to make Mrs. D— speak for the last hour. On examining the state of things I found the clothes under her saturated with blood, and free draining going on. The patient was blanched and the pulse was still slow. Through the abdominal walls the uterus could be felt high up, and a fluctuating mass lay between it and the pubes. A large quantity of urine was removed; the uterus descended into its proper position; and the hæmorrhage at once ceased as in the former case. The patient did well.

Case 3.—Mrs. L—, æt. 20; primipara; residing in Bellbarn Road, was delivered of a male infant after a tedious and painful labour. The placenta came away in about ten minutes, followed by a great gush of blood. I applied for a time pressure to the uterus, which was tilted to one side of the central line. Suspecting the state of the bladder, from

the uterus not being in its proper position, together with the hæmorrhage, I passed my hand over the hypogastric region, and there felt a soft tumour. The fluctuation could not be so effectually made out as in the two former cases; but when a jerk was given to it with the tips of the fingers, the patient instantly expressed a desire to pass water. The condition of the patient was rapidly getting worse, the pulse was very quick, at least 140; and every vestige of colour had fled from the face and lips. I removed a large quantity of urine; the uterus descended to its proper central position, and for a time the hæmorrhage entirely ceased, but it gradually returned again, although not with its former virulence. However, as the patient's condition became worse instead of better, I felt it necessary to take further measures for its immediate arrest. I passed my hand into the uterus, and removed a couple of handfuls of clots, and then followed up that treatment with cold and pressure. The hæmorrhage was now effectually arrested and the patient recovered.

This case differed somewhat from the two preceding ones. In the first two cases the distension of the bladder was the primary and only cause of hæmorrhage, whereas in the last case there were two causes. The primary was the distension of the bladder, which prevented the uterus from contracting perfectly, and thus allowed clots, which were the secondary cause in keeping up the hæmorrhage after the bladder was emptied, to collect in its cavity.

ON PERTUSSIS; ITS CAUSES, SYMPTOMS, AND TREATMENT.

By Richard Marley, M.R.C.S., L.A.S., &c.

Morbus contagiosus, tussis convulsiva, strangulans, cûm inspiratione sonorâ, iterata, sæpe vomitus	Cullen.
Tussis convulsiva	Willis.
Pertussis	Sydenham.
Kink-cough (from *kind*, a child)	German.
Coque-luche	French
Hooping-cough—Chin-cough	English Synonymes.

There appears to be much obscurity respecting the early history of this disease. The first well authenticated cases and description occur in Willis's convulsive affections of children—in 1682.

It is true that in the French literature, as early as the beginning of the fifteenth century, we find mention of the term "Coque luche," but there exists a vagueness and incompleteness in its description, that have led many to doubt that the "Coque luche" of that day is the pertussis of this.

As this paper is intended to bring before the profession the efficacy of a certain line of treatment, I shall not touch upon the symptoms, diagnosis, and prognosis, more than will be necessary for my purpose.

Pertussis usually sets in as a common cold; the eyes may appear suffused, the child seems to have some thickening of, or deposit on, the Schneiderian membrane, as evinced by sniffing and "breathing through the nose," as it is termed, feverishness to a small extent, want of appetite, sleeplessness, general *malaise*, and a slight cough may, during an epidemic of pertussis, prepare us to diagnose the advent of this complaint, and at last the peculiar forced inspiration

known as the whoop, puts all doubt out of the question. The premonitory or catarrhal stage generally lasts about a week, or ten or twelve days. The cough now consists of a series of convulsive expirations, following one another with great rapidity, and not allowing a single attempt at inspiration; the face becomes purple or almost black, from the pressure upon the veins and want of oxygenization of the blood; the eyes are suffused, lachrymose, and appear starting from the orbit. The child seems in convulsive agony, springs and clutches around him, always endeavouring to lay hold of the nearest object, which by convulsively clenching seems to afford him a fulcrum or purchase ground to enable him the better to bear and overcome the paroxysm. At last the expiratory movements cease, simply because the lungs are emptied of air, and impending suffocation is averted by a forced and prolonged inspiration, which is again followed by expiratory cough, and renewed inspiration, until at last the expectoration of a thin glairy mucus or vomiting terminate the seizure, *pro tempore*.

The relief afforded by the cessation of the paroxysm is marvellous—the breathing may be slightly accelerated, as well as the pulse for a minute or two afterwards; but when the child has, in a manner, got accustomed to them, he will generally, on their termination, resume the occupation or amusement in which he had been previously engaged. When the attack ends in vomiting, the child will frequently take food, and eat even ravenously, very soon afterwards. The frequency, duration, and severity of the paroxysms depend upon many circumstances—the more mucus present, especially of a tenacious character, the oftener will they occur. They may be brought on by crying, laughing, or by any powerful mental impression. It has been said that sympathy will excite them, thus one child coughing will immediately set another one off. From the congested state of the blood-vessels, blood very frequently flows from the nose, and the expectoration may be streaked in this manner; this is of importance to remember, as proceeding from epistaxis, almost a mechanical procedure, and not from hæmoptysis.

The same remark applies to blood that may be passed *per anum*. It is frequently swallowed, and might be mistaken as escaping from the mucous surface of the intestines. As these would be symptoms that will always create alarm to the patient and his relatives, the distinctive dangers betwixt epistaxis, and lung or bowel hæmorrhage, may easily be pointed out and adverted upon.

The characteristic whoop which, by its almost agonising shrillness, seems to put the acmé to the distress and danger of the crisis, constitutes in fact the safety of the patient. It has been compared to the passage of a large volume of air forcibly through a narrow and constricted aperture. The following rationale given by Dr. Roe embodies the whole phenomenon :—" The whoop takes place in the larynx and trachea, and appears to be caused by a rush of air through a contracted passage, for no sudden or violent inspiration could produce this sound in the natural state of the air-tubes. The lungs are so completely emptied of air by long-continued expirations, that a most distressing sense of suffocation is produced, to relieve which, a full inspiration is instinctively made, and at the same moment the rima glottidis is contracted, and the air passing quickly through a very narrow opening causes the whoop." I think the involuntary muscles play the most conspicuous part in the expiratory efforts, and the voluntary muscles exert the instinctive life-preserving effort of inspiration. I am led to this conclusion by observing a similar process that may occur in perfect health. Strip a child, or even an adult, and suddenly throw over him a bucket of cold water, and momentarily, with the contact of the water, will be produced a gasp or forced inspiration, in many points a fac-simile of the gasp or whoop in pertussis.

We might infer that there can be no difficulty in forming a diagnosis and prognosis of this complaint, but pertussis, at its commencement, partakes so much of the character of simple catarrh, that no well decided opinion can be given until the second stage has fairly set in. Should the whoop be indistinct and of rare occurrence, the obstinacy and duration

of the complaint are almost diagnostic. The popular notion is that it takes six weeks to mature, that it remains at its worst for a certain time, and takes six weeks in declining or dying away; and by pursuing many of the old and do-nothing lines of treatment, pertussis will often last three, four, or six months. My father, Dr. Marley, and Dr. Good, in their works on 'Diseases of Children,' mention cases that continued to suffer from pertussis for five years before they were completely cured.

But the efficacy of the plan I have pursued for some years is such as to make three weeks, instead of three or six months, the *utmost* duration. It must be borne in mind that relapses are frequent, and the disease may be prolonged for an indefinite period, as a fresh cold, or even serious errors in diet and hygiene, may cause a recurrence of all its worst phenomena.

Now a correct prognosis is a matter of more difficulty and uncertainty, and yet simple and uncomplicated hooping-cough presents but a minimum of danger. However, large portions of the cases are neither simple nor uncomplicated. The frequent discharges of blood and the oft recurrent vomiting, must, even in otherwise uncomplicated cases, render the child feverish, languid, and weak. I have seen children reduced to mere skeletons by it; but the really dangerous complications usually occur in the lungs and brain, and of these two, pulmonary affections are the most frequent; so frequent indeed, that as soon as dyspnœa, accelerated pulse, increased fever and incessant cough appear, auscultation should be practised daily. The constant vomiting and disordered state of the stomach and bowels are apt to bring on gastric or remittent fever. Lastly, we may have brain complications, such as convulsions, hydrocephalus, serous effusion, congestion or apoplexy, and of all the complications these latter are by far the most to be dreaded. The advent of cerebral mischief in a child is always serious, but when it is produced by hooping-cough, and the cause of the complication still exists, of course the disease becomes perpetuated and aggravated by every fresh paroxysm—we

cannot expect to cure the effect or result whilst the exciting cause remains.

When we notice drowsiness, twitchings of the muscles of the face or extremities, torpid conjunctivæ evidenced by the deposit on it of viscid and gummy matter, starting, screaming, and strabismus, the disease assumes a grave aspect, and our prognosis must be bad, or very guarded. That the brain should suffer can be no matter of surprise, when we consider its extreme delicacy in an infant, the frequent determination of blood to the head, and its venous unoxygenated character. Rupture is occasionally produced, and should there exist a congenital, umbilical, or other hernia, it would be very much aggravated. Prolapsus ani is occasionally brought on during a severe attack of this disease. Pertussis is also apt to engender and develop tubercle. Dr. J. H. Bennett, of Edinburgh, says, "In endeavouring to determine the nature of tubercle, we must remember that it occurs in young persons in whom the nutritive functions are deficient in energy, whether from poverty and incapacity of obtaining food, from deficient stamina, or from causes of whatever kind which induce exhaustion; hence its frequency amongst the ill-fed poor, in orphan and foundling institutions . . . . and after acute inflammations, *hooping-cough*, eruptive fevers, and other disorders that weaken the body." This addition to the bad sequelæ of pertussis is to be found in those cases where the vomiting has been excessive, the gastric derangement great, and the disease prolonged to a tedious and unusal extent, especially in patients of a strumous and scrofulous habit. Pneumonia and bronchitis perhaps preponderate in frequency, but yield to brain disease in danger and a fatal termination. Cerebral congestion and effusion are rarely cured, especially should they occur during the period of dentition.

Numerous, learned, and fanciful have been the alleged causes of pertussis. Linnæus says it arises from the entrance into the lungs during inspiration of the larvæ or eggs of insects, which I presume he infers get hatched, and upon being fully matured, invade the pulmonary tissues, causing

inflammation, spasm and hooping-cough! The various phenomena have elsewhere been ascribed to the blood, to suppressed perspiration, to the bowels, stomach, liver, lungs, larynx, trachea, the brain and its membranes, the spinal marrow, and to the pneumogastric nerve. Some call it inflammatory, some nervous, whilst others class it amongst the exanthemata. The only feature it possesses similar to the exanthemata is its usually only occurring once in a lifetime. And in a disease that frequently presents so many morbid pathological symptoms, all these opinions (always excepting that of the learned Linnæus) may be based upon sound practical observation, although so opposed and conflicting.

The *post-mortem* appearances are not of a sufficiently decisive character to give any positive assistance in forming a confirmed hypothesis. We find the morbid traces of the fatal complications, but in death from simple pertussis all such appearances are negative rather than positive.

In the absence of lesion after death, in considering the spasmodic and sudden nature of the cough, and more than all, in looking at the class of remedies whence we derive the sole benefit, pertussis is now pretty generally admitted to be of nervous origin, in fact, to be dependent on reflex irritation of the nervous system. Simple uncomplicated pertussis presents no more danger than that consequent upon the exhaustion produced by its numerous attacks, and the debility occasioned by the oft repeated vomitings with which the paroxysm so frequently terminates. The wasting produced by this persistent emptying of the stomach, is often of a serious character, and it tends very much to retard recovery and prolong a tedious convalescence, besides being likely to produce some of the complications already alluded to. The symptoms and treatment of these graver sequelæ will not be again referred to; they may be diagnosed and treated upon the general principles laid down as incidental to such complaints. (*Vide Churchill's Diseases of Children.*)

This paper being intended to represent the best plan of treating hooping-cough in its three stages, I will at once, after this short introduction, proceed to examine the treatment.

Treatment.—This, in the first or premonitory stage, may be dismissed with but few remarks. It consists of catarrhal symptoms, and requires the same treatment. The child will generally be chilly and averse to leaving the fire; his eyes may be red; he may have a slight, troublesome cough, and mucous râles may be detected by putting the ear to the chest.

A mild aperient always constitutes a good beginning; if the stools be pale, calomel and rhubarb are the best. The administration of salines, such as nitric æther, nitrate of potash, with perhaps the addition of a little antimonial or ipecacuanha wine, will generally suffice.

More marked symptoms would call for antimony or ipecacuanha in larger doses, with the application of leeches or mustard sinapisms, but they are very seldom required. I am not partial to the free administration of antimony even in this stage, for when the disease fairly declares itself, the vomiting is usually abundant and always debilitating.

The child should be kept in *one atmosphere in an equally warmed and well-ventilated room*—it should *not* be allowed to run about anywhere on the grounds that a change of air and plenty of it will effect a cure: such grounds are dangerous and fallacious. There is a time for everything, and the first stage of pertussis is *not* the time to allow a child rapid and indiscriminate changes of air.

In all diseases it is important to know *what* to do, but it is also important to know *when* to do it.

Starting with the conviction of its nervous origin, we naturally, in the second stage, look for relief to antispasmodics, anodynes, and nerve tonics.

I don't know of any disease, with the exceptions of phthisis, cholera, and hydrophobia, in which more remedies have been proposed, and more specifics vaunted; but still for all this, there is scarcely any complaint that, under the usual routine of treatment, is more intractable and more persistent.

I will mention a few of these remedies, including the specifics. (?)

Oil of Amber has been introduced as possessing a most wonderful efficacy in curing hooping-cough.

Dr. Danet has quite recently read a paper before the Académie de Médecine, advocating the employment of succinum in pertussis. After careful and numerous trials, he comes to the conclusion that amber (the essential oil) is the remedial agent from which the best effects are to be expected. In the 'Lancet,' 1855, we read "oil of amber and chloroform, rubbed on the front of the chest, form almost a specific for hooping-cough—they act by lessening the local excitability of the bronchial tubes, and partly by inhalation."

It is also administered internally in doses of from two to five minims. I have tried both ways, and found oil of amber to be perfectly inefficacious. The last case in which I tried it terminated fatally. Some combine it with almond oil.

Dr. Eben Watson recommends

Argent. Nitras, ℈j;
Aquæ Destill., ℥j.

sponge the glottis with it, once daily, and orders the following mixture:

Acid Nitric. dilut., ʒxij;
Tinct. Cardam. cum., ʒiij;
Aquæ Destill., ℥j;
Syrup Simpl., ℥iiiss;

of which he gives a teaspoonful every three hours.

I have noticed that any interference with the glottis is always productive of struggling, vomiting, and a severe paroxysm—children always so energetically oppose any such attempt that, after one experience, the very sight of the bottle will generally bring on a fit. The nitric acid in the above prescription may act as an astringent and mineral tonic, but the second stage of pertussis is not of a nature to benefit so much by tonics as would the third or period of decline. Dr. Gibbs combines the last two formulæ,

and gives cod-liver oil twice a day, orders a liberal diet, with warm and well-ventilated rooms.

Arsenic has of course its advocates. In more uncommon forms, when the paroxysm partakes of a periodical character, it may be useful. I have found it of service in combination with quinine, in an obstinate case where two paroxysms occurred daily at almost the same hour. Dr. Good mentions an instance that preserved this periodical type for nearly two years.

Tincture of Cantharides.—This is a remedy of great repute, the rationale of whose efficacy is hard to make out. Drs. Lettsome, Armstrong, Graves, and Sutliffe strongly advocate its employment.

Dr. Hines, of Nottingham, uses the following formula :

Tinct. Cantharid., ʒij ;
Tinct. Opii, ʒij ;
Tinct. Cinchonæ, ℥iv ;

of which he gives a teaspoonful three times a day.

Now I find that all the physicians who employ this drug combine it with opium (in some form) and bark. May not the opium as a sedative, and the bark as a tonic, effect the good result, instead of the cantharides?

Roche's liniment enjoys a great popularity. This liniment or any other rubefacient, combined with a narcotic, may be of service, but are not specifics.

Alum has been strongly recommended, but Dr. Golding Bird, I notice, combines it with hemlock and aniseed. To give it a fair chance, I tried it, on its own merits, by itself (as I did the Tinct. Cantharid.), and I found it to be of no avail.

Cochineal combined with *Salts of Tartar* is by some considered a specific, but instead of being serviceable, I have known its employment productive of very serious consequences. Owing to its organic nature it will not keep long, especially in summer, and if due precaution be not used in the administration of this (really ineffective) insect, the patient may be made to swallow portions of a decomposed

and putrid mass, to be followed most likely by all the disagreeables of organic poisoning.

In the 'Gazette des Hôpitaux,' Dr. Gerhardt, of Dresden, states that he has, in most cases, succeeded in curing hooping-cough in three weeks, by the following:

Antimon. Oxysulphuret, gr. v;
Calomel, Pulv. Ipec. āā, gr. iiss;
Pulv. Jalap., ℈j vel ℈iss;
Ext. Belladonnæ, gr. ij—iv;
Saccholactin, ʒij.
Divide in twelve powders.

The entire, the half, or a third of one of these powders is to be exhibited three times a day, according to the severity of the case and the age and strength of the child, so as to cause two or three liquid motions. Every other day a tepid bath is ordered, containing a pint or a pint and a half of vinegar, and one or two ounces of Liquor Ammoniæ. In winter the child should be confined to his own chamber, and be allowed to go out in warm weather only, in order that the action of the skin be not checked. The doctor is hostile to much covering and to warm beverages.

Vaccination has been highly spoken of by foreign physicians. If the vaccination act were really compulsory, all infants would be vaccinated before they were six months old. Now the period in the life of children most liable to the attack of pertussis, is two years of age and upwards, so that, legally speaking, we ought to have no chance of testing the prophylactic powers of vaccinia as regards this complaint. I have never purposely vaccinated to modify or shorten this affection, but I have seen vaccinia and pertussis co-existing in the same child, and each appeared to run its course, one affection apparently not exerting the least influence over the other.

I shall now briefly notice two or three drugs that are undoubtedly of great therapeutic value.

I allude to the antispasmodics, sedatives, and anodynes. *Hemlock* has deservedly had many supporters, indeed a

hundred years ago it was looked upon as a specific. In doses of half a grain and upwards of the extract, combined with squills, it is very useful, but it yields in efficacy to *Belladonna* and *Hydrocyanic acid.* These two constitute the drugs, by whose internal administration pertussis may be made to yield. Children may gradually be brought to bear large doses of the former, but owing to its great power, small doses should always be administered at first and then cautiously increased.

Extract Belladonnæ, gr. ij;
Chlorodyne, ♏x;
Oxy. Scillæ., ʒiij;
Aquæ Destill., ℥ss.

For an infant of six months old, a teaspoonful may be given every three or four hours, this may gradually be increased until one or two grains may be given at a dose in older children. It lessens the number, severity, and duration of the paroxysm. Care should be taken that you get a good extract of Belladonna.

Prussic acid exerts a similarly powerful effect, but is not quite so certain in its action, nor can the dose safely be increased to the same extent as that of Belladonna. An infant may have one minim ('Pharmacop. Lond.') every three hours —and with careful watching this may be increased, or given at much shorter intervals (which is a better plan). The combination of the two forms a very effective mixture.

Opium has long been allowed to exert a powerful influence over the severity and duration of pertussis. Dr. Whitehead, of Manchester, speaks highly of an ipecacuanha emetic in the morning, with Dover's powder (with or without camphor) at bedtime—no other medicines in the interim. By these measures he treated fifty-eight cases, and effected a cure on the average in twenty-eight days. However, I find that belladonna is much more certain in its action than opium—children bear it better, and can take larger doses of it—it neither constipates, diminishes secretion, nor affects the head. With opium, expectorants and laxatives may be called for. The belladonna treatment

requires very careful watching, it should be pushed to such an extent that the peculiar effect called *atropism* be induced. Some children fall under its influence very rapidly. When the iris becomes affected, the drug should not be entirely withdrawn, but be decreased in quantity; it may be combined with an alkaline carbonate. Dr. Whitehead, by the use of belladonna, reduced the duration of the disease to twelve, sixteen, or twenty days.

Chlorodyne, from its known components being powerfully anodyne and antispasmodic, is also useful when used in combination with belladonna.

Bromide of Ammonium enjoys a reputation just now that I think it hardly deserves. I have not used it in many instances, simply because I found its action so very uncertain. I have at this time a case wherein I administered as much as six grains a day; but deriving no benefit, I returned to my old plan.

Inhalation is by no means a new method in the treatment of pertussis. Dr. Stewart recommends the fumes of benzoin, in his work on 'Diseases of Children.' Tar, turpentine, camphor, vinegar, nitric æther, have all had their advocates—more latterly sulphuric æther, and later still chloroform, have very properly rendered the employment of all others obsolete. The first mention I can find of the inhalation of æther for pertussis occurs in my late father's work 'On Diseases of Children,' p. 163; he advocates "inhaling the steam of a decoction of the fresh leaves of hemlock, alone or *with æther.*"

Chloroform is less pungent than æther, and not having the same powerful disagreeable smell, children do not so much object to its employment. Chloroform properly administered will *always* shorten the paroxysm, and almost invariably put a stop to it; the only difficulty is in catching the right moment for its exhibition. It must be presented during the first long inspiration—when the lungs are emptied by the previous forced expirations. *Let the air that enters them along with the whoop be mixed with the vapour of chloroform*—the paroxysm will immediately cease, or if

renewed will be very much mitigated. In infants we must wait for the whoop, but in older children, we may almost stop the advent of the fit. When they have had a slight experience in the disease they will often begin with a deep inspiration, and by thus endeavouring to fill the lungs at the commencement, may perhaps succeed in expectoration or vomiting, before all the air has been completely expelled, and thus avoid the agonising suffocative crisis. Here we have a fine opportunity of cutting short the paroxysm. Again, when children have evidences of an approaching attack (we know that it may be induced by many extraneous circumstances), have the chloroform in readiness, and let the child take a deep inspiration, so as, in fact, to bring on the cough; by inhaling the chloroform at this point, no paroxysm usually occurs. I see no valid objections to the employment of this anæsthetic. It has been said to be a dangerous remedy to be left in the hands of a nurse; no harm can follow its use during the expiratory cough; it only can act upon the system during the whoop, and this is of so short a character that too much could not possibly be inhaled. The same objection would render other remedies dangerous in the hands of the nurses, such as a solution of the nitrate of atropia, belladonna, or prussic acid.

Another objection is stated to be the difficulty of getting children to submit to its influence, but this would almost equally apply to administering remedies by the mouth; most children will struggle against taking a mixture, and this very struggling will usually be sufficient to cause a severe attack. Children can and will object to being drenched, but they cannot help inhaling chloroform if presented to them during the inspiration or whoop. In older children, when upon one or two occasions, they have derived benefit from its inhalation, instead of offering opposition they will cry for it.

Chloroform presents no danger to the youngest infant —as a general rule, one inspiration only in a paroxysm being necessary. The mode of administration is not of so much consequence as the period. I

prefer its application upon linen rag, lint, or sponge, as then, amidst all the struggles, none is wasted or thrown about. If poured into the palm of the hand, it may run through the fingers, or be jerked into the infant's face and eyes, or the warm hand might evaporate it before the inspiration occurred. In infants we may be too late to stop the advent, but we can always be in time to cut short the spasm, at the first paroxysm. In children of some years old of course there is no difficulty. Two or three drachms of chloroform may be poured into a large-mouthed ground glass stoppered bottle, over some lint or rag. They will be anxious to have the stopper removed, and for their first inspiration to take place over the mouth of the bottle. This latter should be kept in a moderately warm place, as the subtle and volatile agent will then escape in increased quantity; the repetition of the dose will generally be unnecessary. By putting linen or sponge in the bottle, we have a larger evaporating surface, and the fluid is not so likely to be jerked out.

In the second stage administer Belladonna (to atropism) at regular intervals, and upon the threatened paroxysm resort to chloroform—by these means the disease will be cut short, and a cure effected before many days.

In the third stage or period of decline, our sole efforts will be to do away with the debilitating effects left by the severity of the second. Bark answers all purposes the best. Tuberculous deposit, yields with the greatest certainty to cod-liver oil. Blood that is deficient in fat and abundant in albumen is the most prone to form tubercle, hence the utility of a pure animal oil, for no fat is made during pertussis. Where the stomach will not bear this oil we have a much pleasanter substitute in cream. I believe it to be the *pure animal oil* that works the benefit. All the tissues of the body are derived from the blood, and the blood is dependent on chyle; now chyle ought to contain fat, by assimilating it from the food; wasting disease prevents this assimilation, the fat is not taken into the system, the blood becomes albuminous, and tubercle follows. To

re-establish health, this deficient material (fat) must be supplied, hence the value of oils and cream.

Conclusion.

Although a prolonged practical observation has induced me, thus forcibly, to expatiate upon the advantages of a free employment of chloroform in pertussis, still I do not lay down, as a rule, the arbitrary administration of this agent, to the exclusion of all others. Hooping-cough presents no special facilities in its treatment, and any one who bases this treatment upon a blind speciality will be disappointed over and over again. In all diseases we must modify our course by the special features of each case, and this rule applies to hooping-cough, as well as to other complaints. In chloroform we have a remedy that either at once prevents the paroxysm, or greatly lessens its severity, frequency, and duration. But nevertheless an indiscriminate prejudice in its favour, to the entire exclusion of all other therapeutical agents, would be injudicious.

By the employment of chloroform, belladonna, chlorodyne, and prussic acid (but more especially the first two), pertussis will always yield, and by the rapidity of cure the numerous and fatal complications will be prevented. Of course the bowels must be well looked to, and the diet properly regulated. The food should not be solid; a hearty meal may immediately bring on a severe paroxysm, or induce a relapse. Thick farinaceous, or thickened animal broths will be found to be of the easiest assimilation. Ventilation, good air, and gentle exercise must not be neglected. A popular opinion and error is, that a change of air of itself will effect a cure, when the disease has reached a certain stage, and in these words, "a certain stage," lie all the gist of the remark. When the first and second stages have abated, change of air doubtlessly is beneficial, provided it be a change that removes the patient from a badly-ventilated room, in a close and smoky town, to the health-giving breezes of an open

country. But even this must depend upon the season of the year. I would deprecate the removal of a patient from a warm and well-ventilated room to the piercing winds of March, or the damp, cold, and fog of November.

From the setting in of the premonitory stage, the room used by the child should be of an uniform temperature. He must be warmly clothed, and all the measures of hygiene strictly and carefully attended to.

Dr. Day thought it was scarcely safe to leave chloroform in the hands of nurses. He considered that the disease should be treated on general principles. Bromide of ammonium had been latterly much recommended, but in the few cases in which he had tried it he had not found it to possess much influence on the disease.

Dr. Holt Dunn thought that the treatment in hooping-cough was uncertain, and that we should hail with pleasure any plan which gave more satisfactory results. He had tried the last-named drug, and thought he had found more success with it than with any other.

Dr. Graily Hewitt had some years ago examined carefully into the causes of death from hooping-cough. In the cases he had examined, which were for the most part children badly fed, ill-nourished, and in other respects diseased, death had occurred from collapse of the lung—a condition formerly described as lobular pneumonia. It was useless to attempt to treat such cases by specifics. In all cases of hooping-cough he had found the greatest benefit from a treatment mainly consisting of hygiene—good food, exercise, warmth, ventilation, &c. Antispasmodics and sedatives were frequently required, and were not seldom of great use; but the primary object of the treatment should be to maintain the general health of the child.

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